

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 7907260654 DOC. DATE: 79/07/24 NOTARIZED: NO DOCKET #
 FACIL: 50-220 Nine Mile Point Nuclear Station, Unit 1, Niagara Powe. 05000220
 AUTH. NAME AUTHOR AFFILIATION
 DISE, D.P. Niagara Mohawk Power Corp.
 RECIP. NAME RECIPIENT AFFILIATION
 IPPOLITO, T.A. Operating Reactors Branch 3

SUBJECT: Forwards into on TMRAP & ADLPIPE computer code re
 verification of modeling Techniques for seismic calculations
 on unit safety-related piping sys. (3 bound vols read)

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	23 ACRS	16	16			

Vols entitled, "Info on TMRAP & ADLPIPE
 Computer Code re Verification
 of modeling techniques for seismic
 calculations."

JUL 30 1979

THA
 CLO

July 24, 1979

Director of Nuclear Reactor Regulation
Attn: Mr. Thomas A. Ippolito, Chief
Operating Reactors/Branch #3
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

REGULATORY DOCKET FILE COPY

Dear Mr. Ippolito:

Re: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Please find enclosed information related to verification of modeling techniques for seismic calculations on safety-related piping systems for Nine Mile Point Unit 1.

As requested by your staff, the following is provided for the TMRSAP and ADLPIPE computer codes:

1. Computer model including isometric with node numbers, geometry and restraint locations.
2. Input data card listing for seismic analysis.
3. Corresponding computer output for seismic analysis.

The computer models selected for ADLPIPE and TMRSAP are respectively:

ADLPIPE - Model 1 shutdown cooling system piping
suction and reactor recirculation loop.

TMRSAP - Reactor water cleanup return piping,
System 33 inside the drywell (two models).

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION

Donald P. Dise

Donald P. Dise
Vice President-Engineering

Enclosure

7907260 654

Pool
1/1
ENCL TO
FILES
NO FOR OR
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2012 20-13

SSSSSSSS	SSSSSSSS	SS	SS	SSSSSS	SSSSSSSS	SS	SSS	SSS	SDW321H
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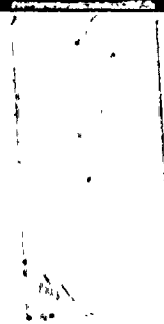
NINE MILE POINT
MODEL 1

SHOCK XYB

X
Y
Z

7907260654

SSSSSSSS	SSSSSSSS	SS	SS	SSSSSS	SSSSSSSS	SS	SSS	SSS	SDH321H
SSSSSSSS	SSSSSSSS	SS	SS	SSSSSS	SSSSSSSS	SS	SSS	SSS	SDH321H
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BATCH UPDATED 03/27/79 TODAY IS 04/09/79
TWIN CITIES CYBERNET CENTER TC2

VERSION ADLPIPE JULY, 1975
REFERENCE ADLPIPE MANUAL, DATED JANUARY 1975

FEATURES OF ADLPIPE

1. ASME SECTION III , CLASS 1 STRESS ANALYSIS AND STRESS REPORT PER NB 3600
2. ASME SECTION III , CLASS 1 USAGE FACTOR CALCULATION.
3. ASME SECTION III , CLASS 2 AND 3 STRESS ANALYSIS AND STRESS REPORT PER WINTER 1972 ADDENDA
4. ANSI B31.1 , 1967 AND 1973 STRESS ANALYSIS AND REPORT
5. ISOMETRIC PLOT WITH SEQUENCE NUMBERS
6. ISOMETRIC PLOTTING WITH OR WITHOUT DIMENSIONS
7. PLAN AND ELEVATION DRAWINGS WITH OR WITHOUT DIMENSIONS
8. STEREOSCOPIC VIEWS OF DEFORMED PIPING
9. SKEW RESTRAINT ADDED (SEE REFERENCED INPUT MANUAL P. 39)
10. REVISED TAPE 14 FILE STRUCTURE (SEE REFERENCED INPUT MANUAL P. 43)
11. OPTIONAL ABSOLUTE SUM ON CLOSELY SPACED MODES
(ACTIVATE BY SPECIFYING PERCENT RANGE OF MODES TO BE ABSOLUTELY SUMMED IN Z(2) FIELD ON SHOCK CARD)
12. HANGER SUMMARY IS AUTOMATICALLY PROVIDED

FOR FURTHER INFORMATION OR COMMENT CONTACT
I. A. DINGWELL
A. D. LITTLE, INC
ACORN PARK
CAMBRIDGE, MASS 02140
TEL (617) 864-5770

COMPILED INPLY DATA

BS	1	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PL	2	4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SH	1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
GROUND MOTION RESPONSE-SPECTRA FOR NINE MILE POINT NU								
DI	0	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
HORIZONTAL INPUT SPECTRUM								
FR	1	6	.1000	.3000	.5000	.7000	.8000	.9000
FR	7	12	1.0000	2.0000	3.0000	4.0000	5.0000	6.0000
FR	13	17	8.0000	10.0000	20.0000	50.0000	100.0000	0.0000
G	1	6	.0540	.0530	.0700	.0930	.1100	.1200
G	7	12	.1300	.2400	.3200	.3800	.4200	.4200
G	13	17	.3900	.3500	.2400	.1400	.1100	0.0000
DI	0	2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VERTICAL INPUT SPECTRUM (2/3 OF HORIZONTAL)								
FR	1	6	.1000	.3000	.5000	.7000	.8000	.9000
FR	7	12	1.0000	2.0000	3.0000	4.0000	5.0000	6.0000
FR	13	17	8.0000	10.0000	20.0000	50.0000	100.0000	0.0000
G	1	6	.0360	.0390	.0470	.0620	.0750	.0800
G	7	12	.0800	.1600	.2130	.2530	.2800	.2800
G	13	17	.2600	.2300	.1600	.0930	.0750	0.0000
AN	0	5	2.5900	274.7500	12.1880	0.0000	0.0000	0.0000
RE	0	5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
IN	0	15	.0100	.0100	.0100	0.0000	0.0000	0.0000

LU	0	20	3.3800	269.2500	15.9050	0.0000	0.0000	0.0000
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ADLPIPE PAGE 3

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDFL-1 XYZ SHOCK

LU	0	20	3.3800	269.2500	15.9050	0.0000	0.0000	0.0000
IN	0	20	.0100	.0100	.0100	0.0000	0.0000	0.0000
IN	0	30	.0100	.0100	.0100	0.0000	0.0000	0.0000
IN	0	40	.0100	.0100	.0100	0.0000	0.0000	0.0000
LU	0	50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IN	0	50	.0100	.0100	.0100	0.0000	0.0000	0.0000
RE	0	50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IN	0	57	.0100	.0100	.0100	0.0000	0.0000	0.0000
LU	0	70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IN	0	70	.0100	.0100	.0100	0.0000	0.0000	0.0000
LU	0	85	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IN	0	85	.0100	.0100	.0100	0.0000	0.0000	0.0000
AN	0	87	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RE	0	87	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
LU	0	90	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IN	0	90	.0100	.0100	.0100	0.0000	0.0000	0.0000
IN	0	100	.0100	.0100	.0100	0.0000	0.0000	0.0000
IN	0	107	.0100	.0100	.0100	0.0000	0.0000	0.0000
IN	0	115	.0100	.0100	.0100	0.0000	0.0000	0.0000
LU	0	125	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IN	0	125	.0100	.0100	.0100	0.0000	0.0000	0.0000
RE	0	125	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
IN	0	135	.0100	.0100	.0100	0.0000	0.0000	0.0000
IN	0	150	.0100	.0100	.0100	0.0000	0.0000	0.0000
AN	0	155	8.4670	267.0200	6.1510	0.0000	0.0000	0.0000
RE	0	155	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
IN	0	167	.0100	.0100	.0100	0.0000	0.0000	0.0000

ADLPIPE PAGE 4

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDFL-1 XYZ SHOCK

IN	0	175	.0100	.0100	.0100	0.0000	0.0000	0.0000
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ADLPIPE PAGE 4

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

IN	0	175	.0100	.0100	.0100	0.0000	0.0000	0.0000
IN	0	190	.0100	.0100	.0100	0.0000	0.0000	0.0000
IN	0	205	.0100	.0100	.0100	0.0000	0.0000	0.0000
IN	0	220	.0100	.0100	.0100	0.0000	0.0000	0.0000
IN	0	240	.0100	.0100	.0100	0.0000	0.0000	0.0000
LU	0	255	-13.2600	269.5030	41.2450	0.0000	0.0000	0.0000
IN	0	255	.0100	.0100	.0100	0.0000	0.0000	0.0000
RE	0	255	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	5	15	28.0000	1.0500	27.4000	0.0000	0.0000	44.1800
RU	5	10	.7900	0.0000	3.7170	0.0000	0.0000	0.0000
EL	10	15	0.0000	0.0000	0.0000	45.0000	0.0000	0.0000
TA	10	15	0.0000	-3.7500	0.0000	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	15	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	15	20	0.0000	-1.7500	0.0000	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	20	30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	20	25	0.0000	-2.9650	0.0000	0.0000	0.0000	0.0000
RU	25	30	0.0000	-2.9650	0.0000	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	30	40	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	30	35	0.0000	-2.9650	0.0000	0.0000	0.0000	0.0000
RU	35	40	0.0000	-2.9650	0.0000	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	40	50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	40	45	0.0000	-2.9650	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 5

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

RU	45	50	0.0000	-2.9650	0.0000	0.0000	0.0000	0.0000
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ADLPIPE PAGE 5

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

RU	45	50	0.0000	-2.9650	0.0000	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	50	57	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	50	55	0.0000	-5.0000	0.0000	0.0000	0.0000	0.0000
RU	55	57	0.0000	-5.4160	0.0000	0.0000	0.0000	0.0000
CH	55	57	30.0000	2.0500	0.0000	0.0000	0.0000	215.2000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	57	70	28.0000	1.0500	27.4000	0.0000	0.0000	44.1800
RU	57	60	0.0000	-3.3020	0.0000	0.0000	0.0000	0.0000
RU	60	65	0.0000	-3.3020	0.0000	0.0000	0.0000	0.0000
RU	65	70	0.0000	-2.8040	0.0000	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	70	85	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	70	75	0.0000	-3.8000	0.0000	0.0000	0.0000	0.0000
EL	75	80	0.0000	0.0000	0.0000	45.0000	0.0000	0.0000
RU	80	85	3.7770	0.0000	-1.4160	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	85	87	30.0000	10.0000	27.4000	0.0000	0.0000	324.3580
RU	85	86	2.2510	0.0000	-1.2560	0.0000	0.0000	0.0000
RU	86	87	0.0000	4.3330	0.0000	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	87	90	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	87	88	2.6240	0.0000	.4730	0.0000	0.0000	0.0000
RU	88	90	.4340	0.0000	-2.4100	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	90	100	28.0000	1.0500	27.4000	0.0000	0.0000	44.1800
RU	90	95	.6740	0.0000	-3.7390	0.0000	0.0000	0.0000

ADLPIPE PAGE 6

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

EL	95	100	0.0000	0.0000	0.0000	45.0000	0.0000	0.0000
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6

ADLPIPE STRESS ANALYSIS

173,1000

7

ADLPIPE STRESS ANALYSIS

SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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ADLPIPE PAGE 7

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	20	167	14.0000	.7530	27.4000	0.0000	0.0000	13.1630
RU	20	160	-2.5750	0.0000	0.0000	0.0000	0.0000	0.0000
RU	160	165	-2.5750	0.0000	0.0000	0.0000	0.0000	0.0000
RU	165	167	-3.3700	0.0000	0.0000	0.0000	0.0000	0.0000
CH	165	167	16.0000	1.7530	0.0000	0.0000	0.0000	98.1700
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	167	175	14.0000	.7530	27.4000	0.0000	0.0000	13.1630
RU	167	170	-3.3420	0.0000	0.0000	0.0000	0.0000	0.0000
RU	170	175	-3.3420	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	175	190	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	175	180	-3.3420	0.0000	0.0000	0.0000	0.0000	0.0000
RU	180	185	-3.3420	0.0000	0.0000	0.0000	0.0000	0.0000
EL	185	190	0.0000	0.0000	0.0000	21.0000	0.0000	0.0000
TA	185	190	0.0000	.1250	1.7500	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	190	205	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	190	195	0.0000	.0020	.0290	0.0000	0.0000	0.0000
RU	195	200	0.0000	.1270	1.7750	0.0000	0.0000	0.0000
EL	200	205	0.0000	0.0000	0.0000	21.0000	0.0000	0.0000
TA	200	205	1.7500	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	205	220	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	205	210	.8750	0.0000	0.0000	0.0000	0.0000	0.0000
RU	210	215	2.6250	0.0000	0.0000	0.0000	0.0000	0.0000
EL	215	220	0.0000	0.0000	0.0000	21.0000	0.0000	0.0000

ADLPIPE PAGE 8

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

TA	215	220	0.0000	0.0000	1.7500	0.0000	0.0000	0.0000
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ADLPIPE PAGE 8

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

TA	215	220	0.0000	0.0000	1.7500	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	220	240	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	220	225	0.0000	0.0000	1.3630	0.0000	0.0000	0.0000
RU	225	230	0.0000	0.0000	3.1130	0.0000	0.0000	0.0000
RU	230	235	0.0000	0.0000	3.1130	0.0000	0.0000	0.0000
RU	235	240	0.0000	0.0000	3.1130	0.0000	0.0000	0.0000
SE	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PI	240	255	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RU	240	245	0.0000	0.0000	3.1130	0.0000	0.0000	0.0000
RU	245	250	0.0000	0.0000	3.1130	0.0000	0.0000	0.0000
RU	250	255	0.0000	0.0000	3.1130	0.0000	0.0000	0.0000
WE	250	255	6630.0000	0.0000	0.0000	0.0000	0.0000	0.0000
EN	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 9

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

130608.83 LBS.

130606.83 LBS,

NETWORK PT. SEC TYPE

1	5	ANCHCR	0.00	0.00	0.00	0.00	0.00	0.00
2	15	LUMP	2038.61	2038.61	2038.61	0.00	0.00	0.00
3	20	LUMP	2709.74	2709.74	2709.74	0.00	0.00	0.00
4	30	LUMP	3143.86	3143.86	3143.86	0.00	0.00	0.00
5	40	LUMP	3143.86	3143.86	3143.86	0.00	0.00	0.00
6	50	LUMP	4759.87	4759.87	4759.87	0.00	0.00	0.00
7	57	LUMP	15943.02	15943.02	15943.02	0.00	0.00	0.00
8	70	LUMP	4081.80	4081.80	4081.80	0.00	0.00	0.00
9	85	LUMP	14448.94	14448.94	14448.94	0.00	0.00	0.00
10	87	ANCHCR	0.00	0.00	0.00	0.00	0.00	0.00
11	90	LUMP	11529.18	11529.18	11529.18	0.00	0.00	0.00
12	100	LUMP	5698.87	5698.87	5698.87	0.00	0.00	0.00
13	107	LUMP	7624.79	7624.79	7624.79	0.00	0.00	0.00
14	115	LUMP	3133.26	3133.26	3133.26	0.00	0.00	0.00
15	125	LUMP	3687.27	3687.27	3687.27	0.00	0.00	0.00
16	135	LUMP	3737.23	3737.23	3737.23	0.00	0.00	0.00
17	150	LUMP	2407.54	2407.54	2407.54	0.00	0.00	0.00
18	155	ANCHCR	0.00	0.00	0.00	0.00	0.00	0.00
19	167	LUMP	4639.49	4639.49	4639.49	0.00	0.00	0.00
20	175	LUMP	1136.40	1136.40	1136.40	0.00	0.00	0.00
21	190	LUMP	829.76	829.76	829.76	0.00	0.00	0.00
22	205	LUMP	577.93	577.93	577.93	0.00	0.00	0.00
23	220	LUMP	1202.37	1202.37	1202.37	0.00	0.00	0.00
24	240	LUMP	1585.21	1585.21	1585.21	0.00	0.00	0.00
25	255	LUMP	0.00	0.00	7368.71	0.00	0.00	0.00

PIPE SYSTEM GEOMETRY
 NUMBER OF NETWORK POINTS = 25
 NUMBER OF SECTIONS = 24
 ORDER OF DYNAMICAL STIFFNESS MATRIX = 64

NUMBER OF MEMBERS = 56
 ORDER OF STIFFNESS MATRIX = 130

NETWORK POINT RESTRAINTS

NETWORK PT.	SEC	TRANSLATION			ROTATION		
		X	Y	Z	X	Y	Z
1	5	RST	RST	RST	RST	RST	RST
2	15	FREE	FREE	FREE	FREE	FREE	FREE
3	20	FREE	FREE	FREE	FREE	FREE	FREE
4	30	FREE	FREE	FREE	FREE	FREE	FREE
5	40	FREE	FREE	FREE	FREE	FREE	FREE
6	50	FREE	FREE	FREE	FREE	FREE	FREE
7	57	FREE	FREE	FREE	FREE	FREE	FREE
8	70	FREE	FREE	FREE	FREE	FREE	FREE
9	85	FREE	FREE	FREE	FREE	FREE	FREE
10	87	RST	RST	RST	RST	RST	RST
11	90	FREE	FREE	FREE	FREE	FREE	FREE
12	100	FREE	FREE	FREE	FREE	FREE	FREE
13	107	FREE	FREE	FREE	FREE	FREE	FREE
14	115	FREE	FREE	FREE	FREE	FREE	FREE
15	125	FREE	FREE	FREE	FREE	FREE	FREE
16	135	FREE	FREE	FREE	FREE	FREE	FREE
17	150	FREE	FREE	FREE	FREE	FREE	FREE
18	155	RST	RST	RST	RST	RST	RST
19	167	FREE	FREE	FREE	FREE	FREE	FREE
20	175	FREE	FREE	FREE	FREE	FREE	FREE
21	190	FREE	FREE	FREE	FREE	FREE	FREE
22	205	FREE	FREE	FREE	FREE	FREE	FREE
23	220	FREE	FREE	FREE	FREE	FREE	FREE
24	240	FREE	FREE	FREE	FREE	FREE	FREE
25	255	RST	RST	FREE	FREE	FREE	FREE

NETWORK POINT MOVEMENTS (INCHES)

NETWORK PT.	SEC	TRANSLATION			ROTATION		
		X	Y	Z	X	Y	Z



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

NO MOVEMENTS

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK



RESPONSE SPECTRA

FREQUENCY X AMPLITUDE

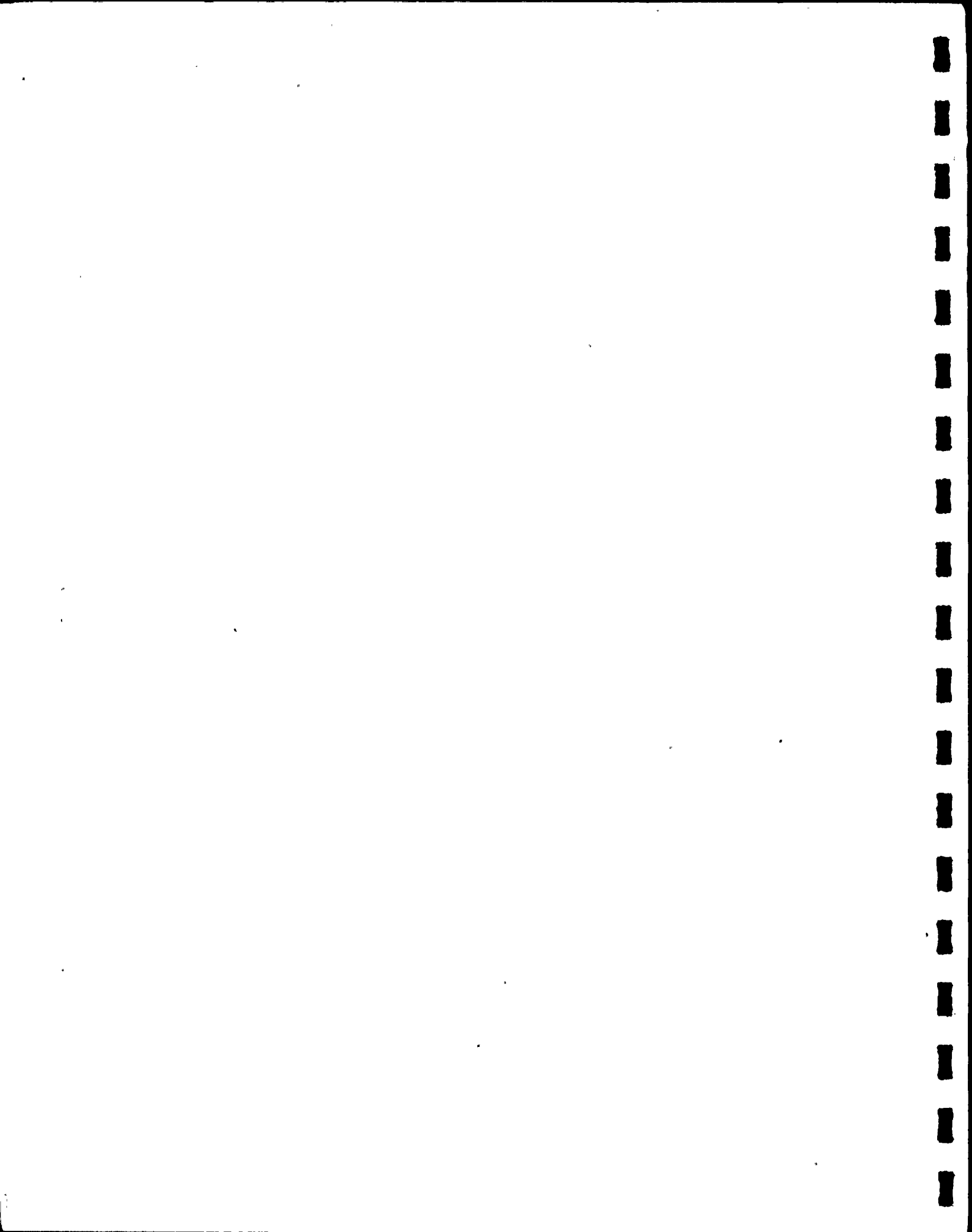
10	.10	52.7985
	.30	6.3011
	.50	2.7377
	.70	1.8557
	.80	1.6805
	.90	1.4485
	1.00	1.2711
	2.00	.5866
	3.00	.3476
	4.00	.2322
	5.00	.1643
	6.00	.1141
	8.00	.0596
	10.00	.0342
	20.00	.0059
	50.00	.0005
100	100.00	.0001

FREQUENCY Y AMPLITUDE

	.10	35.1990
	.30	4.2309
	.50	1.8382
	.70	1.2372
	.80	1.1152
	.90	.9657
	1.00	.8409
	2.00	.3911
	3.00	.2314
	4.00	.1546
	5.00	.1095
	6.00	.0760
	8.00	.0397
	10.00	.0225
	20.00	.0039
	50.00	.0004
	100.00	.0001

FREQUENCY Z AMPLITUDE

	.10	52.7985
	.30	6.3011
	.50	2.7377
	.70	1.8557
	.80	1.6805
	.90	1.4485
	1.00	1.2711
	2.00	.5866
	3.00	.3476
	4.00	.2322
	5.00	.1643
	6.00	.1141
	8.00	.0596
	10.00	.0342
	20.00	.0059
	50.00	.0005
	100.00	.0001



4.00	.2322
5.00	.164
6.00	.1141
8.00	.0596
10.00	.0322
20.00	.0059
50.00	.0005
100.00	.0001



* NOTE *

FOR CURVED MEMBERS, QUANTITIES LISTED UNDER
INITIAL CO-ORDS ARE CO-ORDS OF ARC CENTER
THE BRACKETED NUMBERS WHICH FOLLOW ARE THE
ARC RADIUS (IN), INCLUDED ANGLE (DEG).

* NOTE *

FOR THIS VERSION, CO-ORD DIMENSIONS IN FEET
ALL OTHER QUANTITIES, RADIUS, THICKNESS, STRESS
MOMENTS, ETC. ARE DIMENSIONED IN INCHES.

PIPE SYSTEM GEOMETRY

SECTION 1 CONNECTS SEQUENCE POINTS 5 AND 15 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SG IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	5	10	14.00	1.050	2.59	274.75	12.19	2.60	274.75	12.24	.27E+08	0.00	0.	44.18
2	EL/EL	10	15	14.00	1.050	2.60	271.00	12.24	(45,000	90,000)		.27E+08	0.00	0.	44.18

SECTION 2 CONNECTS SEQUENCE POINTS 15 AND 20 AND HAS 1 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SG IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	15	20	14.00	1.050	3.38	271.00	15.91	3.38	269.25	15.91	.27E+08	0.00	0.	44.18

SECTION 3 CONNECTS SEQUENCE POINTS 20 AND 30 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SG IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	20	25	14.00	1.050	3.38	269.25	15.91	3.38	266.29	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	25	30	14.00	1.050	3.38	266.29	15.91	3.38	263.32	15.91	.27E+08	0.00	0.	44.18

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SECTION 4 CONNECTS SEQUENCE POINTS 30 AND 40 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	30	35	14.00	1.050	3.38	263.32	15.91	3.38	260.36	15.91	.27E+08	0.00 0.		44.18
2	RU/RU	35	40	14.00	1.050	3.38	260.36	15.91	3.38	257.39	15.91	.27E+08	0.00 0.		44.18

SECTION 5 CONNECTS SEQUENCE POINTS 40 AND 50 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	40	45	14.00	1.050	3.38	257.39	15.91	3.38	254.43	15.91	.27E+08	0.00 0.		44.18
2	RU/RU	45	50	14.00	1.050	3.38	254.43	15.91	3.38	251.46	15.91	.27E+08	0.00 0.		44.18

SECTION 6 CONNECTS SEQUENCE POINTS 50 AND 57 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	50	55	14.00	1.050	3.38	251.46	15.91	3.38	246.46	15.91	.27E+08	0.00 0.		44.18
2	RU/RU	55	57	15.00	2.050	3.38	246.46	15.91	3.38	241.04	15.91	.27E+08	0.00 0.		215.20

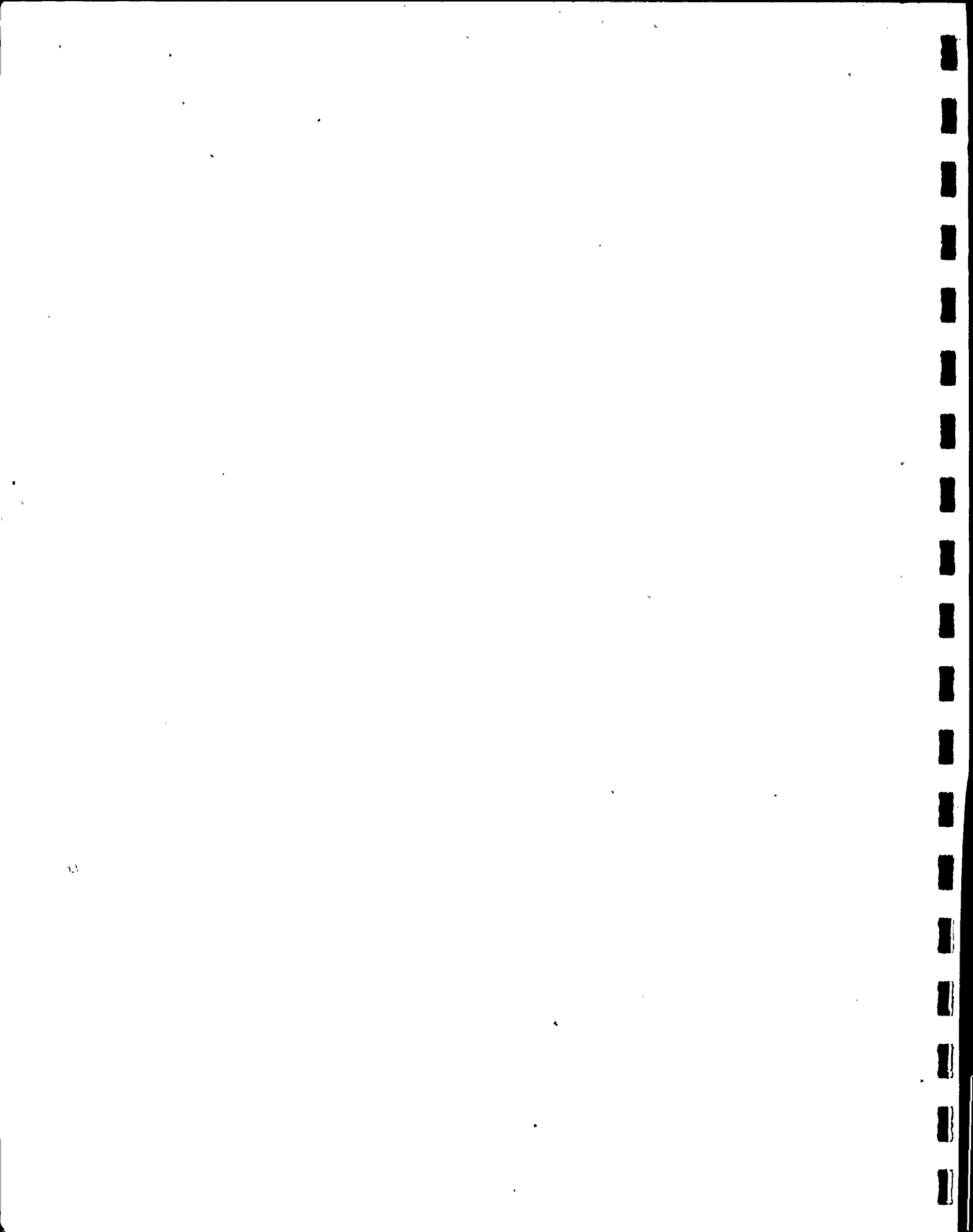
SECTION 7 CONNECTS SEQUENCE POINTS 57 AND 70 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	57	60	14.00	1.050	3.38	241.04	15.91	3.38	237.74	15.91	.27E+08	0.00 0.		44.18
2	RU/RU	60	65	14.00	1.050	3.38	237.74	15.91	3.38	234.44	15.91	.27E+08	0.00 0.		44.18
3	RU/RU	65	70	14.00	1.050	3.38	234.44	15.91	3.38	231.64	15.91	.27E+08	0.00 0.		44.18

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SECTION 8 CONNECTS SEQUENCE POINTS 70 AND 85 AND HAS 3 MEMBERS.



SECTION 8 CONNECTS SEQUENCE POINTS

70 AND 85 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	70	75	14.00	1.050	3.38	231.64	15.91	3.38	231.59	15.91	.27E+08	0.00	0.	44.18
2	EL/EL	75	80	14.00	1.050	7.11	231.59	15.49	(45,000	90,000)		.27E+08	0.00	0.	44.18
3	RU/RU	80	85	14.00	1.050	7.11	227.84	15.49	7.16	227.84	15.49	.27E+08	0.00	0.	44.18

SECTION 9 CONNECTS SEQUENCE POINTS

85 AND 87 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	85	86	15.00	10.000	7.16	227.84	15.49	9.42	227.84	15.23	.27E+08	0.00	0.	324.36
2	RU/RU	86	87	15.00	10.000	9.42	227.84	15.23	9.42	232.17	15.23	.27E+08	0.00	0.	324.36

SECTION 10 CONNECTS SEQUENCE POINTS

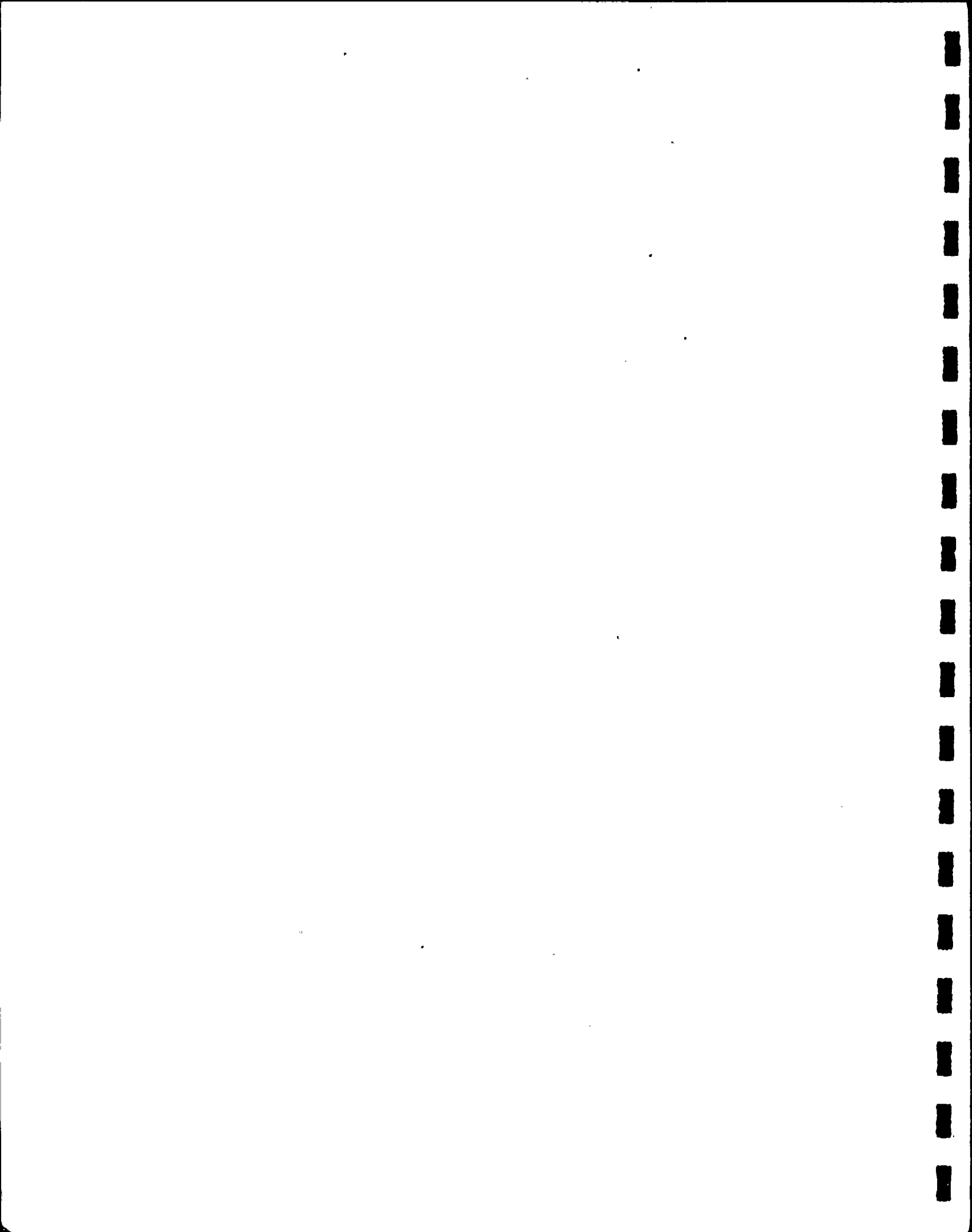
87 AND 90 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	87	88	15.00	10.000	9.42	232.17	15.23	12.04	232.17	15.71	.27E+08	0.00	0.	324.36
2	RU/RU	88	90	15.00	10.000	12.04	232.17	15.71	12.48	232.17	13.30	.27E+08	0.00	0.	324.36

SECTION 11 CONNECTS SEQUENCE POINTS

90 AND 100 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	90	95	14.00	1.050	12.48	232.17	13.30	12.48	232.17	13.25	.27E+08	0.00	0.	44.18
2	EL/EL	95	100	14.00	1.050	12.48	235.92	13.25	(45,000	90,000)		.27E+08	0.00	0.	44.18



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SECTION12 CONNECTS SEQUENCE POINTS 100 AND 107 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	100	105	14.00	1.050	13.15	235.92	9.56	13.15	237.17	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	105	107	15.00	2.050	13.15	237.17	9.56	13.15	241.75	9.56	.27E+08	0.00	0.	173.10

SECTION13 CONNECTS SEQUENCE POINTS 107 AND 115 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	107	110	14.00	1.050	13.15	241.75	9.56	13.15	244.71	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	110	115	14.00	1.050	13.15	244.71	9.56	13.15	247.66	9.56	.27E+08	0.00	0.	44.18

SECTION14 CONNECTS SEQUENCE POINTS 115 AND 125 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	115	120	14.00	1.050	13.15	247.66	9.56	13.15	250.62	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	120	125	14.00	1.050	13.15	250.62	9.56	13.15	253.57	9.56	.27E+08	0.00	0.	44.18

SECTION15 CONNECTS SEQUENCE POINTS 125 AND 135 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	125	130	14.00	1.050	13.15	253.57	9.56	13.15	257.57	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	130	135	14.00	1.050	13.15	257.57	9.56	13.15	261.57	9.56	.27E+08	0.00	0.	44.18

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SECTION16 CONNECTS SEQUENCE POINTS 135 AND 150 AND HAS 3 MEMBERS.



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SECTION16 CONNECTS SEQUENCE POINTS 135 AND 150 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	135	140	14.00	1.050	13.15	261.57	9.56	13.15	262.64	9.56	.27E+08	0.00 0.		44.18
2	EL/EL	140	145	14.00	1.050	10.12	262.64	7.35	(45.000 75.997)			.27E+08	0.00 0.		44.18
3	RU/RU	145	150	14.00	1.050	10.85	266.28	7.89	10.81	266.29	7.65	.27E+08	0.00 0.		44.18

SECTION17 CONNECTS SEQUENCE POINTS 150 AND 155 AND HAS 1 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	150	155	14.00	1.050	10.81	266.29	7.85	8.47	267.02	6.15	.27E+08	0.00 0.		44.18

SECTION18 CONNECTS SEQUENCE POINTS 20 AND 167 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	20	160	7.00	.753	3.38	269.25	15.91	.80	269.25	15.91	.27E+08	0.00 0.		13.18
2	RU/RU	160	165	7.00	.753	.80	269.25	15.91	-1.77	269.25	15.91	.27E+08	0.00 0.		13.18
3	RU/RU	165	167	8.00	1.753	-1.77	269.25	15.91	-5.14	269.25	15.91	.27E+08	0.00 0.		98.17

SECTION19 CONNECTS SEQUENCE POINTS 167 AND 175 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	167	170	7.00	.753	-5.14	269.25	15.91	-8.48	269.25	15.91	.27E+08	0.00 0.		13.18
2	RU/RU	170	175	7.00	.753	-8.48	269.25	15.91	-11.82	269.25	15.91	.27E+08	0.00 0.		13.18

$$11.1, 11.1(1.185)(1.185) = 14.4715$$

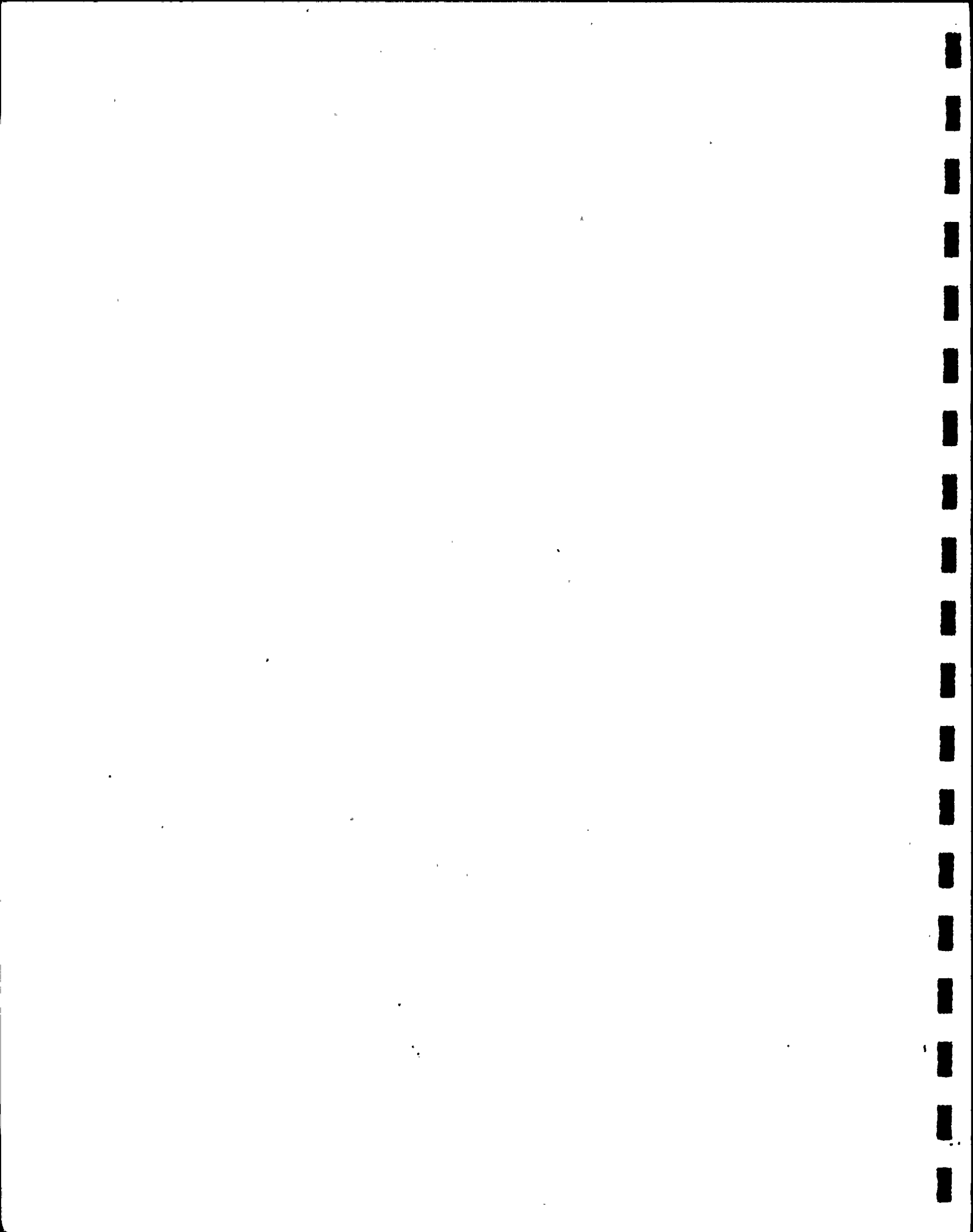
$$2 = 9.12$$

$$1.185 \times 1.185 = 1.404$$

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SECTION20 CONNECTS SEQUENCE POINTS 175 AND 190 AND HAS 3 MEMBERS.



SECTION20 CONNECTS SEQUENCE POINTS 175 AND 190 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	175	180	7.00	.753	-11.82	269.25	15.91	-15.17	269.25	15.91	.27E+08	0.00 0.		13.18
2	RU/RU	180	185	7.00	.753	-15.17	269.25	15.91	-16.76	269.25	15.91	.27E+08	0.00 0.		13.18
3	EL/EL	185	190	7.00	.753	-16.76	269.37	17.65	(	21,000 90,000)		.27E+08	0.00 0.		13.18

SECTION21 CONNECTS SEQUENCE POINTS 190 AND 205 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	190	195	7.00	.753	-18.51	269.37	17.65	-18.51	269.38	17.68	.27E+08	0.00 0.		13.18
2	RU/RU	195	200	7.00	.753	-18.51	269.38	17.68	-18.51	269.38	17.71	.27E+08	0.00 0.		13.18
3	EL/EL	200	205	7.00	.753	-16.76	269.38	17.71	(	21,000 90,000)		.27E+08	0.00 0.		13.18

SECTION22 CONNECTS SEQUENCE POINTS 205 AND 220 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	205	210	7.00	.753	-16.76	269.50	19.45	-15.88	269.50	19.45	.27E+08	0.00 0.		13.18
2	RU/RU	210	215	7.00	.753	-15.88	269.50	19.45	-15.01	269.50	19.45	.27E+08	0.00 0.		13.18
3	EL/EL	215	220	7.00	.753	-15.01	269.50	21.20	(	21,000 90,000)		.27E+08	0.00 0.		13.18

SECTION23 CONNECTS SEQUENCE POINTS 220 AND 240 AND HAS 4 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	220	225	7.00	.753	-13.26	269.50	21.20	-13.26	269.50	22.57	.27E+08	0.00 0.		13.18
2	RU/RU	225	230	7.00	.753	-13.26	269.50	22.57	-13.26	269.50	25.68	.27E+08	0.00 0.		13.18

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

NINE MILE NPS MODEL 1 XYZ SHOCK

3 RU/RU	230	235	7.00	.753	-13.26	269.50	25.65	-13.26	269.50	28.79	.27E+08	0.00 0.	13.18
4 RU/RU	235	240	7.00	.753	-13.26	269.50	28.79	-13.26	269.50	31.91	.27E+08	0.00 0.	13.18

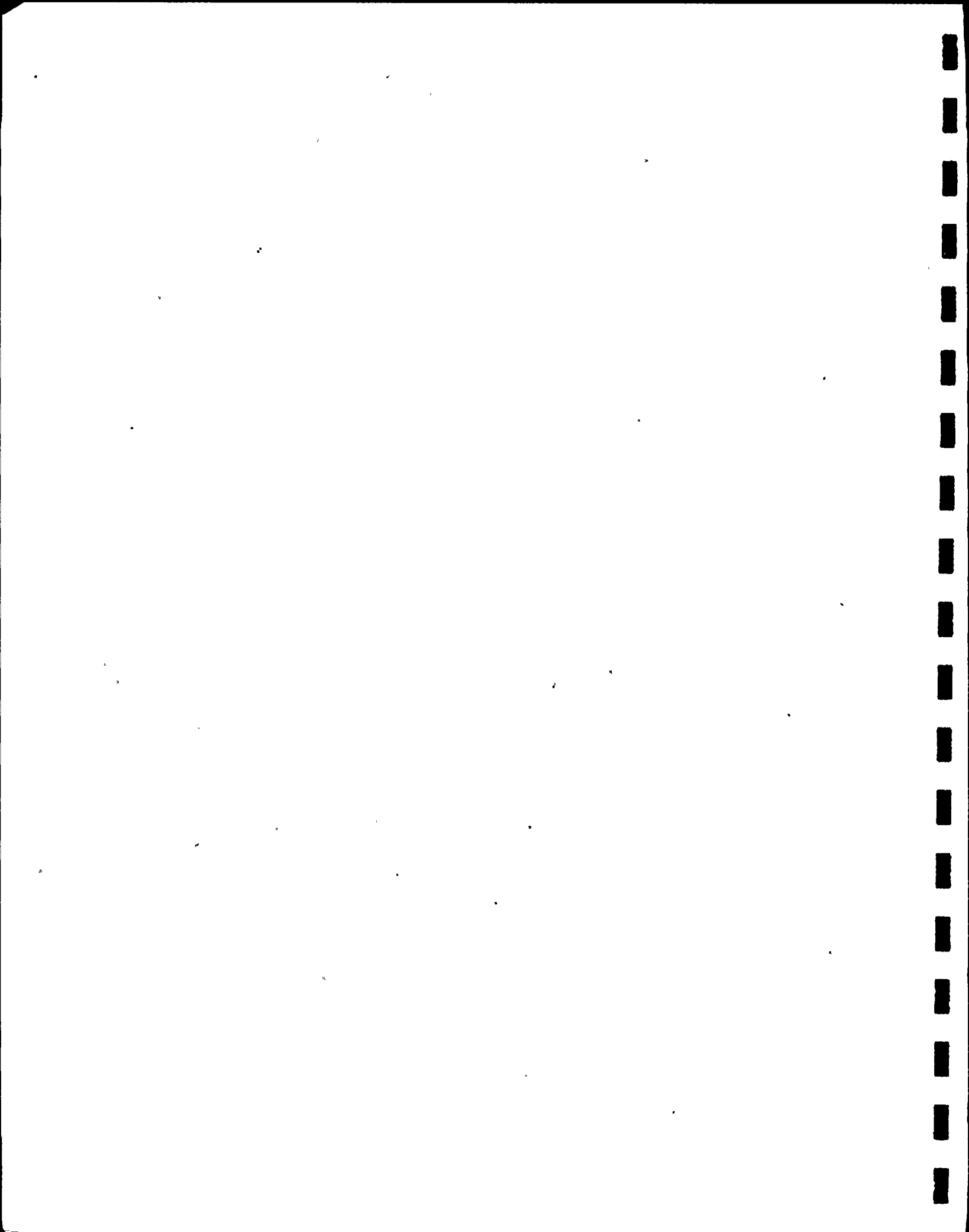
SECTION 24 CONNECTS SEQUENCE POINTS 240 AND 255 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/30 IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	240	245	7.00	.753	-13.26	269.50	31.91	-13.26	269.50	35.02	.27E+08	0.00 0.	13.18	
2	RU/RU	245	250	7.00	.753	-13.26	269.50	35.02	-13.26	269.50	38.13	.27E+08	0.00 0.	13.18	
3	RU/RU	250	255	7.00	.753	-13.26	269.50	38.13	-13.26	269.50	41.25	.27E+08	0.00 0.	13.18	
WEIGHT						.66E+04									

ADLPIPE PAGE 20

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

MODAL DEFLECTIONS FOR 20 FREQUENCIES

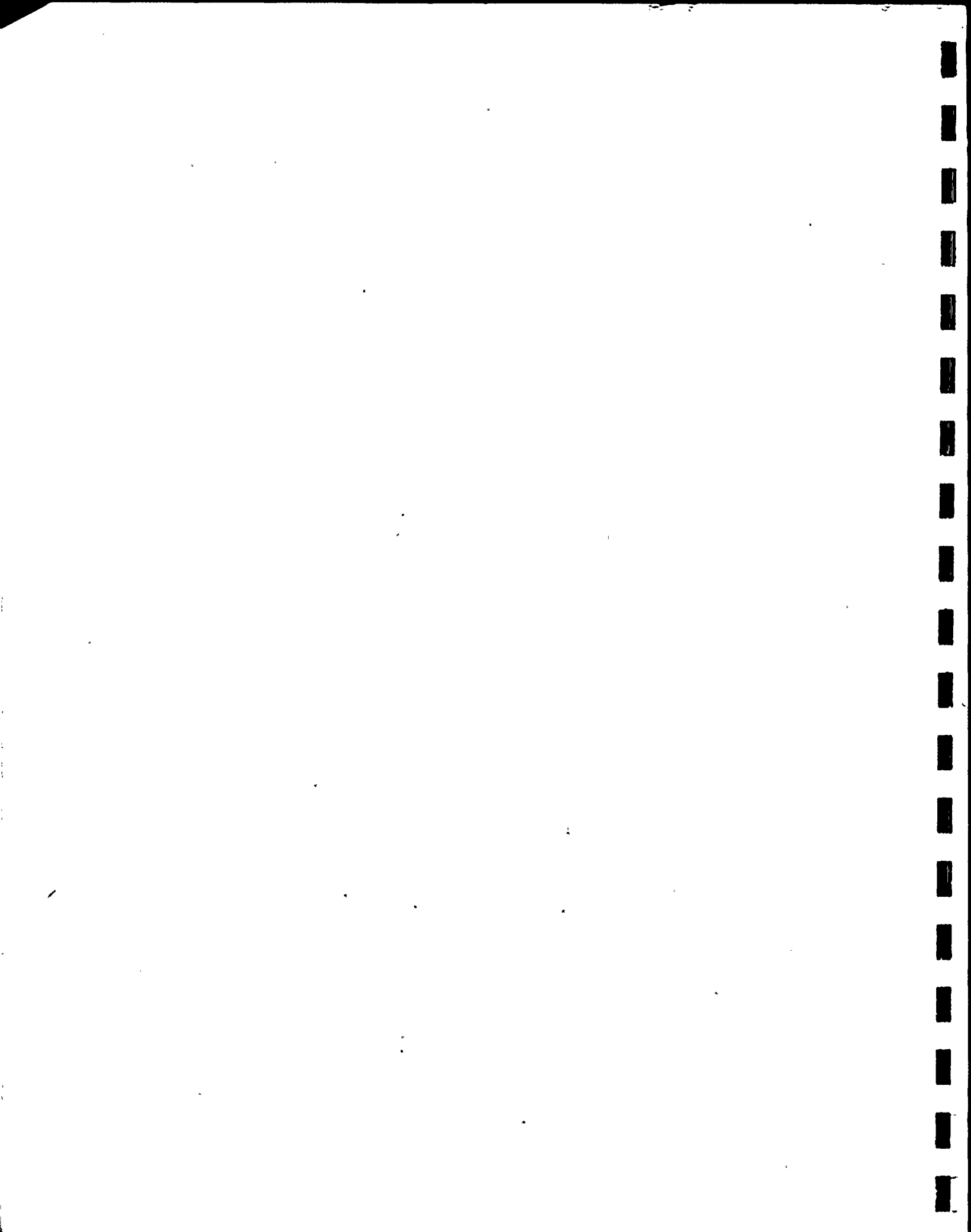


ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

MODAL DEFLECTIONS FOR 20 FREQUENCIES
DEFLECTIONS INCLUDE SHOCK SPECTRA DISPLACEMENTS AND MODAL PARTICIPATION FACTORS

		MODE AND FREQUENCY									
LUMP	DIR	1 1.927	2 3.721	3 7.612	4 8.611	5 11.594	6 13.072	7 13.639	8 15.694	9 15.926	10 18.087
15	1	.017	-.001	.020	.001	.000	-.000	0.000	0.000	.000	-.000
15	2	.003	-.000	.012	.000	-.000	.000	0.000	0.000	.000	.000
15	3	.001	-.000	.016	-.001	-.000	.000	0.000	0.000	.000	.000
20	1	.019	-.003	.029	.002	.000	-.000	0.000	0.000	.000	-.000
20	2	.003	-.000	.012	.000	-.000	.000	0.000	0.000	.000	.000
20	3	.003	-.000	.027	-.001	-.000	.000	0.000	0.000	.000	.000
30	1	.022	-.007	.057	.004	-.000	-.000	0.000	0.000	-.000	-.001
30	2	.003	-.000	.012	.000	-.000	.000	0.000	0.000	.000	.000
30	3	.007	-.000	.061	-.003	-.000	.000	0.000	0.000	.000	.000
40	1	.023	-.008	.079	.005	-.000	.000	0.000	0.000	-.000	-.000
40	2	.003	-.000	.012	.000	-.000	.000	0.000	0.000	.000	.000
40	3	.010	-.000	.086	-.005	-.000	.000	0.000	0.000	.000	.000
50	1	.021	-.008	.088	.006	-.001	.000	0.000	0.000	-.000	-.000
50	2	.002	-.000	.012	.000	-.000	.000	0.000	0.000	.000	.000
50	3	.012	-.001	.096	-.005	-.000	.000	0.000	0.000	-.000	.000
57	1	.013	-.005	.068	.004	-.001	.000	0.000	0.000	-.000	.001
57	2	.002	-.000	.012	.000	-.000	.000	0.000	0.000	.000	.000
57	3	.011	-.000	.075	-.004	.000	.000	0.000	0.000	-.000	-.000
70	1	.004	-.001	.020	.001	-.000	.000	0.000	0.000	.000	.000
70	2	.002	-.000	.012	.000	-.000	.000	0.000	0.000	.000	.000
70	3	.007	-.000	.027	-.001	.000	.000	0.000	0.000	-.000	-.000
85	1	-.000	-.000	-.000	.000	-.000	.000	0.000	0.000	-.000	-.000
85	2	.000	.000	.001	-.000	.000	.000	0.000	0.000	.000	.000
85	3	.000	-.000	.001	-.000	.000	.000	0.000	0.000	-.000	-.000
90	1	0.000	0.000	0.000	0.000	0.000	0.000	.000	.000	0.000	0.000
90	2	0.000	0.000	0.000	0.000	0.000	0.000	.000	.000	0.000	0.000
90	3	0.000	0.000	0.000	0.000	0.000	0.000	.000	.000	0.000	0.000
100	1	0.000	0.000	0.000	0.000	0.000	0.000	.007	.002	0.000	0.000
100	2	0.000	0.000	0.000	0.000	0.000	0.000	.005	-.000	0.000	0.000
100	3	0.000	0.000	0.000	0.000	0.000	0.000	.003	-.000	0.000	0.000
107	1	0.000	0.000	0.000	0.000	0.000	0.000	.012	.003	0.000	0.000
107	2	0.000	0.000	0.000	0.000	0.000	0.000	.005	-.000	0.000	0.000
107	3	0.000	0.000	0.000	0.000	0.000	0.000	.019	-.002	0.000	0.000
115	1	0.000	0.000	0.000	0.000	0.000	0.000	.015	.004	0.000	0.000
115	2	0.000	0.000	0.000	0.000	0.000	0.000	.005	-.000	0.000	0.000
115	3	0.000	0.000	0.000	0.000	0.000	0.000	.025	-.003	0.000	0.000
125	1	0.000	0.000	0.000	0.000	0.000	0.000	.012	.004	0.000	0.000
125	2	0.000	0.000	0.000	0.000	0.000	0.000	.005	-.000	0.000	0.000
125	3	0.000	0.000	0.000	0.000	0.000	0.000	.023	-.002	0.000	0.000
135	1	0.000	0.000	0.000	0.000	0.000	0.000	.004	.001	0.000	0.000
135	2	0.000	0.000	0.000	0.000	0.000	0.000	.005	-.000	0.000	0.000
135	3	0.000	0.000	0.000	0.000	0.000	0.000	.010	-.001	0.000	0.000
150	1	0.000	0.000	0.000	0.000	0.000	0.000	-.000	.000	0.000	0.000
150	2	0.000	0.000	0.000	0.000	0.000	0.000	.001	-.000	0.000	0.000
150	3	0.000	0.000	0.000	0.000	0.000	0.000	.001	-.000	0.000	0.000
167	1	.019	-.003	.029	.002	.000	-.000	0.000	0.000	.000	-.000
167	2	-.005	.042	-.002	-.001	.000	.000	0.000	0.000	.000	.004
167	3	.220	-.001	.036	-.000	.002	-.000	0.000	0.000	.002	-.001

175	1	.019	-.003	.029	.002	.000	-.000	0.000	0.000	.000	-.000
175	2	-.012	.100	.008	.001	.000	-.001	0.000	0.000	.000	.002



ADLPIPE PAGE 21

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

175	1	.019	-.003	.029	.002	.000	-.000	0.000	0.000	.000	-.000
175	2	-.012	.100	.008	.001	.000	.001	0.000	0.000	.000	.002
175	3	.492	-.000	.020	.000	.003	-.000	0.000	0.000	.002	-.001
190	1	.072	-.001	.027	.002	.002	-.000	0.000	0.000	-.001	-.000
190	2	-.019	.165	.034	.003	.001	.001	0.000	0.000	-.000	-.006
190	3	.772	.001	-.003	.001	.007	-.000	0.000	0.000	-.000	.001
205	1	.100	-.000	.029	.003	.005	-.000	0.000	0.000	-.001	-.000
205	2	-.015	.145	.037	.002	.000	.000	0.000	0.000	-.000	-.004
205	3	.752	.001	-.007	.000	.004	-.000	0.000	0.000	-.000	.001
220	1	.097	-.000	.031	.003	.007	-.000	0.000	0.000	-.001	.000
220	2	-.007	.107	.032	.001	-.001	-.001	0.000	0.000	-.000	.001
220	3	.749	.001	-.015	-.000	-.001	.000	0.000	0.000	-.000	.000
240	1	.052	-.000	.023	.002	.009	-.000	0.000	0.000	-.001	.001
240	2	-.004	.056	.024	.001	-.001	-.001	0.000	0.000	-.000	-.000
240	3	.750	.001	-.015	-.000	-.001	.000	0.000	0.000	-.000	.000
255	3	.750	.001	-.015	-.000	-.002	.000	0.000	0.000	-.000	.000

MODE AND FREQUENCY

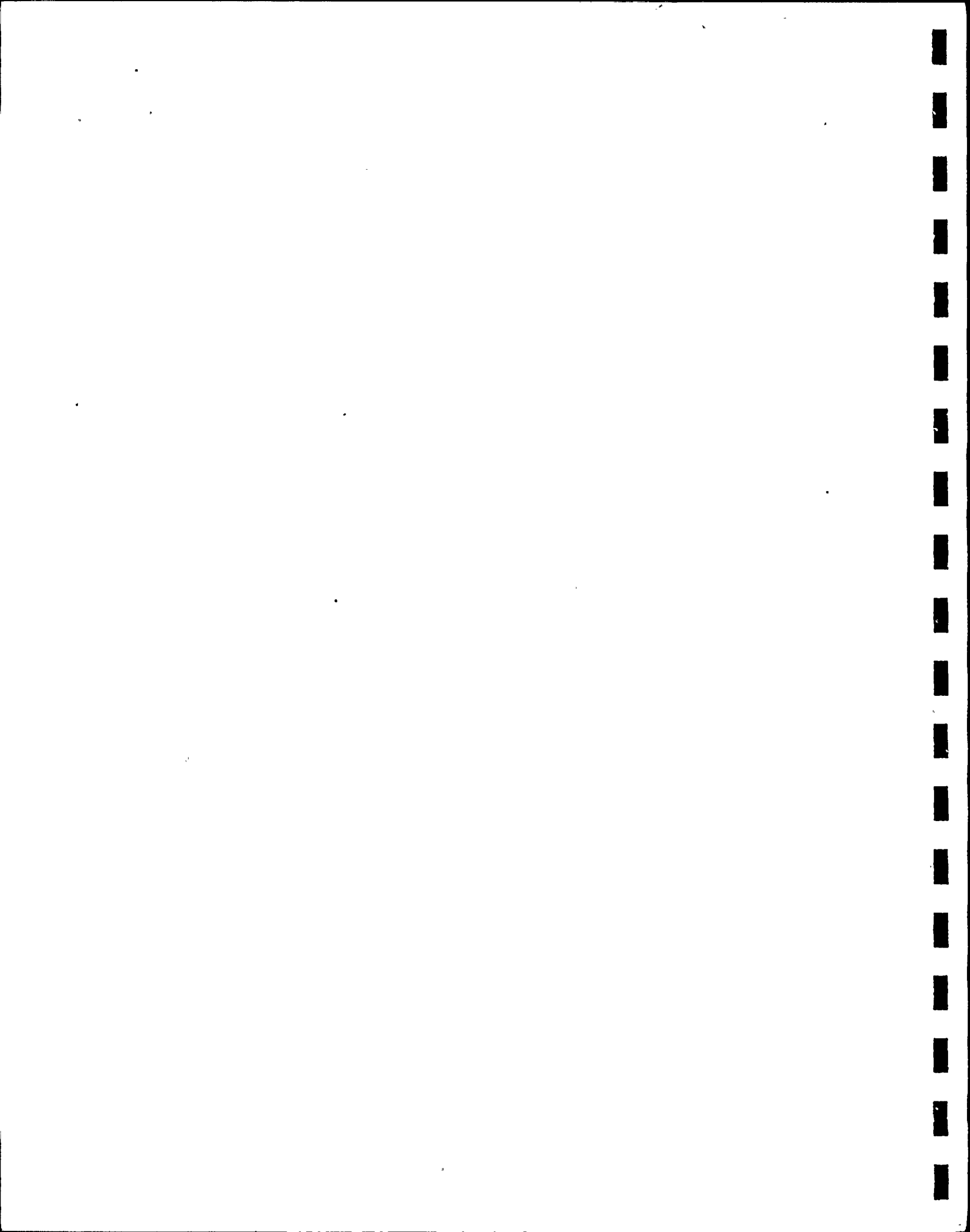
LUMP	DIR	11 21.273	12 23.561	13 27.611	14 28.677	15 31.573	16 32.317	17 36.573	18 41.836	19 47.390	20 48.929
15	1	.000	.000	.000	.000	.000	0.000	.000	0.000	0.000	-.000
15	2	-.000	.000	-.000	.000	.001	0.000	-.000	0.000	0.000	-.000
15	3	-.000	.000	-.000	.000	.000	0.000	.000	0.000	0.000	.000
20	1	.000	.001	.000	.000	.000	0.000	.000	0.000	0.000	-.000
20	2	-.000	.000	-.000	.000	.001	0.000	-.000	0.000	0.000	-.000
20	3	-.000	.000	-.000	.000	.000	0.000	-.000	0.000	0.000	.000
30	1	.000	.001	.000	.000	-.000	0.000	-.000	0.000	0.000	-.000
30	2	-.000	.000	-.000	.000	.001	0.000	-.000	0.000	0.000	-.000
30	3	-.000	.001	-.000	-.000	-.000	0.000	.000	0.000	0.000	.000
40	1	.000	.000	.000	-.000	-.001	0.000	-.000	0.000	0.000	.000
40	2	-.000	.000	-.000	.000	.001	0.000	-.000	0.000	0.000	-.000
40	3	-.000	.001	-.000	-.000	-.001	0.000	.000	0.000	0.000	-.000
50	1	.000	.000	.000	-.000	-.001	0.000	-.000	0.000	0.000	.000
50	2	-.000	.000	-.000	.000	.001	0.000	-.000	0.000	0.000	-.000
50	3	-.000	.000	-.000	-.000	-.001	0.000	.000	0.000	0.000	-.000
57	1	-.000	-.000	-.000	.000	.000	0.000	.000	0.000	0.000	-.000
57	2	-.000	.000	-.000	.000	.001	0.000	-.000	0.000	0.000	-.000
57	3	.000	-.000	.000	.000	.000	0.000	-.000	0.000	0.000	.000
70	1	-.000	-.000	-.000	.000	.001	0.000	-.000	0.000	0.000	-.000
70	2	-.000	.000	-.000	.000	.001	0.000	-.000	0.000	0.000	-.000
70	3	.000	-.001	.000	.000	.001	0.000	-.000	0.000	0.000	.000
85	1	.000	-.000	-.000	-.000	-.000	0.000	.000	0.000	0.000	-.000
85	2	-.000	.000	.000	.000	.000	0.000	.000	0.000	0.000	.000
85	3	.000	-.000	.000	.000	.000	0.000	-.000	0.000	0.000	.000
90	1	0.000	0.000	0.000	0.000	0.000	-.000	0.000	.000	-.000	0.000
90	2	0.000	0.000	0.000	0.000	0.000	.000	0.000	.000	.000	0.000
90	3	0.000	0.000	0.000	0.000	0.000	-.000	0.000	.000	-.000	0.000
100	1	0.000	0.000	0.000	0.000	0.000	-.000	0.000	.000	-.000	0.000
100	2	0.000	0.000	0.000	0.000	0.000	.000	0.000	.000	.000	0.000
100	3	0.000	0.000	0.000	0.000	0.000	.000	0.000	.000	-.000	0.000
107	1	0.000	0.000	0.000	0.000	0.000	-.000	0.000	.000	.000	0.000
107	2	0.000	0.000	0.000	0.000	0.000	.000	0.000	.000	.000	0.000

ADLPIPE PAGE 22

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

107	3	0.000	0.000	0.000	0.000	0.000	.000	0.000	-.000	-.000	0.000
115	1	0.000	0.000	0.000	0.000	0.000	.000	0.000	-.000	.000	0.000



ADLPIPE PAGE 22

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

107	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167	1	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	1	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	3	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	1	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	3	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
205	1	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
205	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
205	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
220	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
220	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
220	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
240	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
240	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
240	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
255	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ADLPIPE PAGE 23

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

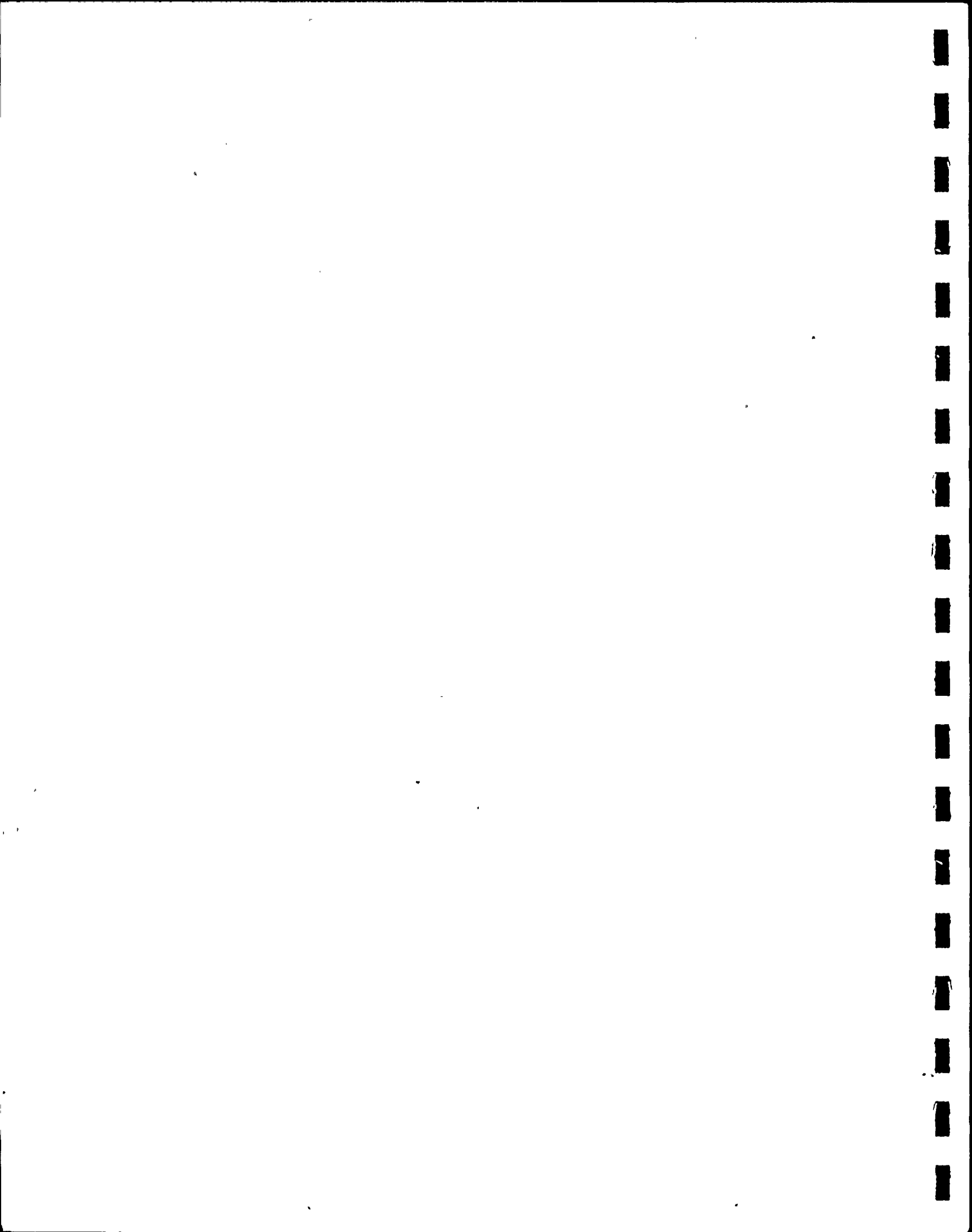
ADLPIPE STRESS ANALYSIS

LOADS
SHOCK

LOADS
SHOCK

SC	HE	SEO	POS	FX (LB)	FY (LB)	FZ (LB)	1.93 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	215.	1125.	-3846.	115968.	-508360.	172316.	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-215.	-1125.	3846.	-116628.	508966.	-172176.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
1	2	15	END	-215.	-1125.	3846.	6926.	554413.	-151973.	.0168	.0026	.0507	-0.0001	.0006	.0001
2	1	15	BEG	228.	1127.	-3845.	-6926.	-554413.	151973.	.0168	.0026	.0507	-0.0001	.0006	.0001
2	1	20	END	-228.	-1127.	3845.	87670.	554413.	-147181.	.0185	.0026	.0027	-0.0001	.0006	.0001
3	1	20	BEG	253.	1116.	60.	-82059.	168707.	149476.	.0185	.0026	.0027	-0.0001	.0006	.0001
3	1	25	END	-253.	-1116.	-60.	79922.	-168707.	-140472.	.0207	.0026	.0053	-0.0001	.0006	.0001
3	2	30	END	-253.	-1116.	-60.	77785.	-168707.	-131469.	.0221	.0025	.0074	-0.0001	.0006	.0000
4	1	30	BEG	280.	1119.	69.	-77705.	168707.	131469.	.0221	.0025	.0074	-0.0001	.0006	.0000
4	1	35	END	-280.	-1119.	-69.	75334.	-168707.	-121521.	.0227	.0025	.0091	-0.0000	.0005	.0000
4	2	40	END	-280.	-1119.	-69.	72882.	-168707.	-111574.	.0226	.0025	.0104	-0.0000	.0005	-0.0000
5	1	40	BEG	307.	1122.	-81.	-72882.	168707.	111574.	.0226	.0025	.0104	-0.0000	.0005	-0.0000
5	1	45	END	-307.	-1122.	-81.	69986.	-168707.	-100664.	.0219	.0025	.0112	-0.0000	.0005	-0.0000
5	2	50	END	-307.	-1122.	-81.	67029.	-168707.	-89755.	.0207	.0025	.0117	-0.0000	.0004	-0.0000
6	1	50	BEG	344.	1127.	103.	-67089.	168707.	89755.	.0207	.0025	.0117	-0.0000	.0004	-0.0000
6	1	55	END	-344.	-1127.	-103.	60932.	-168707.	-69108.	.0174	.0024	.0116	.0000	.0004	-0.0001
6	2	57	END	-344.	-1127.	-103.	54262.	-168707.	-46742.	.0129	.0024	.0107	.0000	.0003	-0.0001
7	1	57	BEG	422.	1141.	168.	-54262.	168707.	46742.	.0129	.0024	.0107	.0000	.0003	-0.0001
7	1	60	END	-422.	-1141.	-168.	47608.	-168707.	-30007.	.0099	.0024	.0098	.0000	.0003	-0.0001
7	2	65	END	-422.	-1141.	-168.	40954.	-168707.	-13272.	.0066	.0024	.0086	.0000	.0002	-0.0001
7	3	70	END	-422.	-1141.	-168.	35303.	-168707.	940.	.0036	.0024	.0073	.0000	.0002	-0.0001
8	1	70	BEG	428.	1145.	179.	-35303.	168707.	-940.	.0038	.0024	.0073	.0000	.0002	-0.0001
8	1	75	END	-428.	-1145.	-179.	35195.	-168707.	1197.	.0037	.0024	.0073	.0000	.0002	-0.0001
8	2	80	END	-428.	-1145.	-179.	32768.	-178837.	71691.	-0.0001	.0002	.0004	-0.0000	.0000	-0.0000

SC	HE	SEO	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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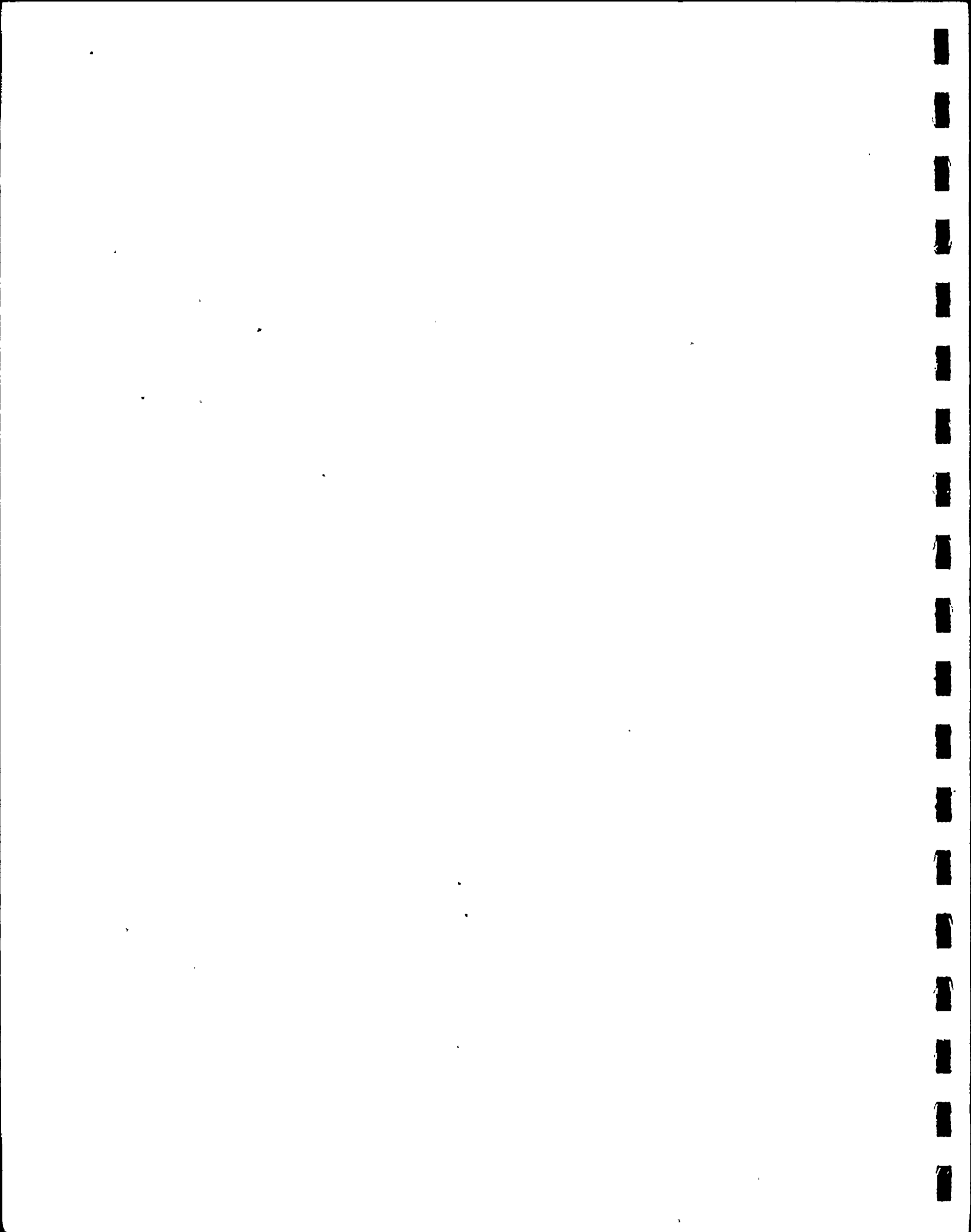
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-428.	-1145.	-179.	32843.	-178972.	72371.	-.0001	.0002	.0004	-.0000	.0000	-.0000
9	1	85	BEG	428.	1146.	182.	-32843.	178972.	-72371.	-.0001	.0002	.0004	-.0000	.0000	-.0000
9	1	86	END	-428.	-1146.	-182.	36363.	-185217.	103467.	-.0001	.0000	.0001	-.0000	.0000	-.0000
9	2	87	END	-428.	-1146.	-182.	45813.	-185217.	81224.	.0000	0.0000	-.0000	-.0000	0.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 25

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	NINE MILE MX (IN-LB)	NPS MY (IN-LB)	MODEL 1 MZ (IN-LB)	SHOCK DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-6.	13.	-3902.	-5610.	-723120.	-2296.	.0185	.0026	.0027	-.0001	.0006	.0001
18	1	160	END	6.	-13.	3902.	5610.	802538.	1865.	.0185	.0002	.0400	-.0001	.0017	.0001
18	2	165	END	6.	-13.	3902.	5610.	481957.	1474.	.0185	-.0022	.1078	-.0001	.0026	.0001
18	3	167	END	6.	-13.	3902.	5610.	324147.	937.	.0185	-.0054	.2196	-.0001	.0029	.0001
19	1	167	BEG	27.	0.	-3515.	-5610.	-324147.	-937.	.0185	-.0054	.2196	-.0001	.0029	.0001
19	1	170	END	-27.	-4.	3515.	5610.	183166.	786.	.0185	-.0087	.3482	-.0000	.0034	.0001
19	2	175	END	-27.	-4.	3515.	5610.	42185.	635.	.0165	-.0121	.4924	-.0000	.0037	.0001
20	1	175	BEG	35.	-1.	-3303.	-5610.	-42185.	-635.	.0185	-.0121	.4924	-.0000	.0037	.0001
20	1	180	END	-35.	1.	3303.	5610.	-90271.	603.	.0185	-.0155	.6403	-.0000	.0036	.0001
20	2	185	END	-35.	1.	3303.	5610.	-153368.	720.	.0185	-.0171	.7087	.0000	.0035	.0001
20	3	190	END	-35.	1.	3303.	699.	-221995.	696.	.0717	-.0191	.7716	-.0000	.0019	.0001
21	1	190	BEG	58.	-7.	-3060.	-699.	221995.	-696.	.0717	-.0191	.7716	-.0000	.0019	.0001
21	1	195	END	-58.	7.	3060.	628.	-221975.	697.	.0724	-.0191	.7716	-.0000	.0019	.0001
21	2	200	END	-58.	7.	3060.	553.	-221954.	695.	.0731	-.0191	.7716	-.0000	.0019	.0001
21	3	205	END	-58.	7.	3060.	-3876.	-156496.	453.	.0998	-.0154	.7539	.0000	.0003	.0002
22	1	205	BEG	60.	-11.	-2894.	3876.	156496.	-453.	.0998	-.0154	.7539	.0000	.0003	.0002
22	1	210	END	-80.	11.	2894.	-3876.	-126108.	340.	.0998	-.0134	.7510	.0000	.0003	.0002
22	2	215	END	-80.	11.	2894.	-3876.	-95721.	226.	.0998	-.0114	.7468	.0000	.0002	.0002
22	3	220	END	-80.	11.	2894.	-3650.	-33275.	-0.	.0968	-.0072	.7495	-.0000	-.0003	.0002
23	1	220	BEG	124.	-14.	-2552.	3650.	33275.	-0.	.0968	-.0072	.7495	-.0000	-.0003	.0002
23	1	225	END	-124.	14.	2552.	-3420.	-31250.	0.	.0924	-.0069	.7495	-.0000	-.0003	.0002
23	2	230	END	-124.	14.	2552.	-2895.	-26625.	0.	.0807	-.0062	.7496	-.0000	-.0003	.0002

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	NINE MILE MX (IN-LB)	NPS MY (IN-LB)	MODEL 1 MZ (IN-LB)	SHOCK DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 26

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	NINE MILE H _X (IN-LB)	NPS H _Y (IN-LB)	MODEL 1 H _Z (IN-LB)	XYZ SHOCK D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
23	3	235	END	-124.	14.	2552.	-2370.	-22001.	0.	.0671	-.0052	.7497	-.0000	-.0004	.0002
23	4	240	END	-124.	14.	2552.	-1845.	-17376.	0.	.0518	-.0041	.7498	-.0000	-.0004	.0002
24	1	240	BEG	155.	-16.	-2100.	1845.	17376.	0.	.0518	-.0041	.7498	-.0000	-.0004	.0002
24	1	245	END	-155.	16.	2100.	-1230.	-11584.	0.	.0352	-.0028	.7499	-.0000	-.0005	.0002
24	2	250	END	-155.	16.	2100.	-615.	-5792.	0.	.0178	-.0014	.7500	-.0000	-.0005	.0002
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	.0000	.7501	-.0000	-.0005	.0002
24	3	255	END	-155.	16.	2100.	0.	0.	0.	-.0000	.0000	.7501	-.0000	-.0005	.0002

ADLPIPE PAGE 27

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MCCE 1 FREQUENCY 1.93

NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	215.	1125.	-3846.	115960.	-508360.	122316.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	13.	2.	1.	0.	0.	-0.	.0168	.0026	.0007	-.0001	.0006	.0001
3	20	19.	3.	3.	0.	-0.	-0.	.0185	.0026	.0027	-.0001	.0006	.0001
4	30	27.	3.	9.	0.	-0.	-0.	.0221	.0025	.0074	-.0001	.0006	.0000
5	40	27.	3.	13.	0.	0.	0.	.0226	.0025	.0104	-.0000	.0005	-.0000
6	50	38.	5.	21.	0.	-0.	0.	.0207	.0025	.0117	-.0000	.0004	-.0000
7	57	78.	15.	65.	-0.	-0.	0.	.0129	.0024	.0107	.0000	.0003	-.0001
8	70	6.	8.	11.	-0.	-0.	0.	.0038	.0024	.0073	.0000	.0002	-.0001
9	85	-1.	1.	2.	-0.	-0.	0.	-.0001	.0002	.0004	-.0000	.0000	-.0000
10	87	-428.	-1146.	-182.	45813.	-185217.	81224.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	33.	-10.	387.	-0.	-0.	-0.	.0185	-.0054	.2196	-.0001	.0029	.0001
20	175	8.	-5.	213.	0.	-0.	0.	.0185	-.0121	.4924	-.0000	.0037	.0001
21	190	23.	-6.	243.	-0.	0.	-0.	.0717	-.0191	.7716	-.0000	.0019	.0001
22	205	22.	-3.	166.	0.	-0.	-0.	.0996	-.0154	.7539	.0000	.0003	.0002
23	220	44.	-3.	342.	0.	0.	-0.	.0968	-.0072	.7495	-.0000	-.0003	.0002
24	240	31.	-2.	452.	0.	0.	0.	.0518	-.0041	.7498	-.0000	-.0004	.0002
25	255	-155.	16.	2100.	0.	0.	0.	-.0000	.0000	.7501	-.0000	-.0005	.0002

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
MODE 1 FREQUENCY 1.93

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS			RX (RAD)	RY (RAD)	RZ (RAD)
	FX (LB)	FY (LB)	FZ (LB)			

ADLPIPE PAGE 29

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

LOADS
SHOCK



LOADS
SHOCK

SC	HE	SEQ	POS	MODE FX (LB)	2 FREQUENCY FY (LB)	FZ (LB)	3,72 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-124.	-180.	-17.	8621.	-12949.	51870.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	124.	180.	17.	-8515.	12878.	-51892.	.0000	.0000	-.0000	-.0000	.0000	-.0000
1	2	15	END	124.	180.	17.	188.	7593.	-59146.	-.0015	-.0002	-.0001	.0000	-.0000	-.0001
2	1	15	BEG	-128.	-181.	-18.	-158.	-7593.	59146.	-.0015	-.0002	-.0001	.0000	-.0000	-.0001
2	1	20	END	128.	181.	18.	557.	7593.	-61833.	-.0029	-.0002	-.0002	.0000	-.0000	-.0001
3	1	20	BEG	-163.	720.	1.	3516.	-2795.	-105320.	-.0029	-.0002	-.0002	.0000	-.0000	-.0001
3	1	25	END	163.	-720.	-1.	-3543.	2795.	99512.	-.0051	-.0002	-.0003	.0000	-.0000	-.0001
3	2	30	END	163.	-720.	-1.	-3569.	2795.	93705.	-.0067	-.0002	-.0004	.0000	-.0000	-.0000
4	1	30	BEG	-193.	719.	-1.	3569.	-2795.	-93705.	-.0067	-.0002	-.0004	.0000	-.0000	-.0000
4	1	35	END	193.	-719.	1.	-3537.	2795.	86833.	-.0078	-.0002	-.0004	.0000	-.0000	-.0000
4	2	40	END	193.	-719.	1.	-3505.	2795.	79961.	-.0084	-.0002	-.0005	.0000	-.0000	-.0000
5	1	40	BEG	-231.	718.	-3.	3505.	-2795.	-79961.	-.0084	-.0002	-.0005	.0000	-.0000	-.0000
5	1	45	END	231.	-718.	3.	-3396.	2795.	71755.	-.0086	-.0002	-.0005	.0000	-.0000	.0000
5	2	50	END	231.	-718.	3.	-3287.	2795.	63550.	-.0083	-.0002	-.0005	.0000	-.0000	.0000
6	1	50	BEG	-287.	716.	-7.	3287.	-2795.	-63550.	-.0083	-.0002	-.0005	.0000	-.0000	.0000
6	1	55	END	287.	-716.	7.	-2887.	2795.	63558.	-.0070	-.0003	-.0005	-.0000	-.0000	.0000
6	2	57	END	287.	-716.	7.	-2453.	2795.	27736.	-.0051	-.0003	-.0005	-.0000	-.0000	.0000
7	1	57	BEG	-401.	710.	-17.	2453.	-2795.	-27736.	-.0051	-.0003	-.0005	-.0000	-.0000	.0000
7	1	60	END	401.	-710.	17.	-1781.	2795.	11841.	-.0037	-.0003	-.0004	-.0000	-.0000	.0000
7	2	65	END	401.	-710.	17.	-1109.	2795.	-4054.	-.0022	-.0003	-.0003	-.0000	-.0000	.0000
7	3	70	END	401.	-710.	17.	-536.	2795.	-17552.	-.0010	-.0003	-.0003	-.0000	-.0000	.0000
8	1	70	BEG	-407.	709.	-19.	538.	-2795.	17552.	-.0010	-.0003	-.0003	-.0000	-.0000	.0000
8	1	75	END	407.	-709.	19.	-527.	2795.	-17796.	-.0010	-.0003	-.0003	-.0000	-.0000	.0000
8	2	80	END	407.	-709.	19.	3860.	5629.	-4404.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	NINE MILE MX (IN-LB)	NPS MY (IN-LB)	MODEL 1 MZ (IN-LB)	SHOCK DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	407.	-709.	19.	3846.	5667.	-3983.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000
9	1	85	BEG	-408.	710.	-19.	-3846.	-5667.	3983.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000
9	1	86	END	408.	-710.	19.	6026.	7429.	15269.	-0.0000	0.0000	0.0000	-0.0000	-0.0000	-0.0000
9	2	87	END	408.	-710.	19.	5050.	7429.	36470.	0.0000	0.0000	-0.0000	-0.0000	0.0000	0.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 31

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	NINE MILE MX (IN-LB)	NPS MY (IN-LB)	MODEL 1 MZ (IN-LB)	SHOCK DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 31

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FY (LB)	FY (LB)	FZ (LB)	NINE MILE MY (IN-LB)	NPS MY (IN-LB)	MODEL 1 MZ (IN-LB)	SHOCK DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	20.	-901.	-19.	-4074.	-4798.	167154.	-.0029	-.0002	-.0002	.0000	-.0000	-.0001
18	1	160	END	-20.	901.	19.	4074.	4214.	-139323.	-.0029	.0062	-.0005	.0000	-.0000	-.0003
18	2	165	END	-20.	901.	19.	4074.	3629.	-111493.	-.0029	.0195	-.0006	.0000	-.0000	-.0005
18	3	167	END	-20.	901.	19.	4074.	2865.	-75070.	-.0029	.0424	-.0006	.0000	.0000	-.0006
19	1	167	BEG	5.	-622.	-23.	-4074.	-2865.	75070.	-.0029	.0424	-.0006	.0000	.0000	-.0006
19	1	170	END	-5.	622.	23.	4074.	1952.	-50118.	-.0029	.0692	-.0004	.0000	.0000	-.0007
19	2	175	END	-5.	622.	23.	4074.	1052.	-25167.	-.0029	.1003	-.0000	.0000	.0000	-.0008
20	1	175	BEG	1.	-461.	-23.	-4074.	-1052.	25167.	-.0029	.1003	-.0000	.0000	.0000	-.0008
20	1	180	END	-1.	461.	23.	4074.	144.	-6689.	-.0029	.1336	.0004	.0001	.0000	-.0008
20	2	185	END	-1.	461.	23.	4074.	-288.	2113.	-.0029	.1497	.0006	.0001	.0000	-.0008
20	3	190	END	-1.	461.	23.	13691.	-751.	11787.	-.0015	.1653	.0010	.0001	.0000	-.0008
21	1	190	BEG	-1.	-266.	-21.	-13691.	751.	-11787.	-.0015	.1653	.0010	.0001	.0000	-.0008
21	1	195	END	1.	266.	21.	13763.	-752.	11787.	-.0015	.1652	.0010	.0001	.0000	-.0008
21	2	200	END	1.	266.	21.	13877.	-752.	11787.	-.0015	.1652	.0010	.0001	.0000	-.0008
21	3	205	END	1.	266.	21.	19427.	-325.	6192.	-.0002	.1454	.0013	.0002	-.0000	-.0008
22	1	205	BEG	-1.	-147.	-20.	-19427.	325.	-6192.	-.0002	.1454	.0013	.0002	-.0000	-.0008
22	1	210	END	1.	147.	20.	19427.	-111.	4644.	-.0002	.1373	.0013	.0002	-.0000	-.0008
22	2	215	END	1.	147.	20.	19427.	104.	3096.	-.0002	.1292	.0013	.0002	-.0000	-.0008
22	3	220	END	1.	147.	20.	22523.	505.	0.	-.0003	.1071	.0014	.0003	-.0000	-.0008
23	1	220	BEG	-2.	35.	-18.	-22523.	-505.	0.	-.0003	.1071	.0014	.0003	-.0000	-.0008
23	1	225	END	2.	-35.	18.	21951.	474.	-0.	-.0003	.1016	.0014	.0003	-.0000	-.0008
23	2	230	END	2.	-35.	18.	20644.	405.	-0.	-.0003	.0879	.0014	.0004	.0000	-.0008

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FY (LB)	FY (LB)	FZ (LB)	NINE MILE MX (IN-LB)	NPS MY (IN-LB)	MODEL 1 MZ (IN-LB)	SHOCK DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 32

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDEL 1 XYZ SHOCK

SC	HE	SEG	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	2.	-35.	18.	19337.	336.	-0.	-.0003	.0727	.0014	.0004	.0000	-.0008
23	4	240	END	2.	-35.	18.	18030.	267.	-0.	-.0002	.0561	.0014	.0005	.0000	-.0008
24	1	240	BEG	-2.	161.	-15.	-18030.	-267.	0.	-.0002	.0561	.0014	.0005	.0000	-.0008
24	1	245	END	2.	-161.	15.	12020.	178.	0.	-.0002	.0381	.0014	.0005	.0000	-.0008
24	2	250	END	2.	-161.	15.	6010.	89.	0.	-.0001	.0193	.0014	.0005	.0000	-.0008
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	0.0000	.0014	.0005	.0000	-.0008
24	3	255	END	2.	-161.	15.	0.	-0.	0.	.0000	0.0000	.0014	.0005	.0000	-.0008

ADLPIPE PAGE 33

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDEL 1 XYZ SHOCK
MCDE 2 FREQUENCY 3.72



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
MCDE 2 FREQUENCY 3.72

NET PT SEG		NET GRK POINT REACTIONS AND DEFLECTIONS												
		F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)	
1	5	-124.	-186.	-17.	8621.	-12949.	51870.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	15	-4.	-0.	-0.	-0.	0.	0.	-.0015	-.0002	-.0001	.0000	-.0000	-.0001	
3	20	-11.	-1.	-1.	-0.	-0.	0.	-.0029	-.0002	-.0002	.0000	-.0000	-.0001	
4	30	-30.	-1.	-2.	-0.	0.	0.	-.0067	-.0002	-.0004	.0000	-.0000	-.0000	
5	40	-37.	-1.	-2.	-0.	0.	0.	-.0084	-.0002	-.0005	.0000	-.0000	-.0000	
6	50	-56.	-2.	-4.	-0.	0.	-0.	-.0083	-.0002	-.0005	.0000	-.0000	.0000	
7	57	-115.	-6.	-10.	0.	-0.	-0.	-.0051	-.0003	-.0005	.0000	-.0000	.0000	
8	70	-6.	-2.	-2.	0.	0.	-0.	-.0010	-.0003	-.0003	-.0000	-.0000	.0000	
9	85	-1.	1.	-0.	0.	0.	0.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000	
10	87	408.	-710.	19.	5050.	7429.	36470.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
14	115	0.	3.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
19	167	-19.	278.	-4.	0.	0.	0.	-.0029	.0424	-.0006	.0000	.0000	-.0006	
20	175	-5.	161.	-0.	-0.	0.	0.	-.0029	.1003	-.0000	.0000	.0000	-.0008	
21	190	-2.	194.	1.	0.	-0.	0.	-.0015	.1653	.0010	.0001	.0000	-.0008	
22	205	-0.	119.	1.	-0.	0.	0.	-.0002	.1454	.0013	.0002	-.0000	-.0008	
23	220	-0.	182.	2.	-0.	0.	0.	-.0003	.1071	.0014	.0003	-.0000	-.0008	
24	240	-1.	126.	3.	-0.	-0.	-0.	-.0002	.0561	.0014	.0005	.0000	-.0008	
25	255	2.	-161.	15.	0.	-0.	0.	.0000	0.0000	.0014	.0005	.0000	-.0008	



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS HCCCL 1 XYZ SHOCK
PCCE 2 FREQUENCY 3.72

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS			DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
	F _X (LB)	F _Y (LB)	F _Z (LB)				

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS HCCCL 1 XYZ SHOCK

LOADS
SHOCK



ADLPIPE PAGE 35

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

LCADS
SHOCK

SC	HE	SEQ	POS	MODE FX (LB)	3 FREQUENCY FY (LB)	FZ (LB)	7.61 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-7079.	-284.	-5636.	324292.	-255599.	-407024.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	7079.	284.	5636.	-324125.	252146.	406989.	.0000	.0000	.0000	-.0000	.0000	.0000
1	2	15	END	7079.	284.	5636.	-57996.	-6729.	85771.	.0198	.0122	.0159	-.0005	.0003	.0004
2	1	15	BEG	-6840.	-137.	-5444.	57998.	6729.	-85771.	.0198	.0122	.0159	-.0005	.0003	.0004
2	1	20	END	6840.	137.	5444.	56317.	-6729.	-57866.	.0285	.0122	.0266	-.0005	.0003	.0004
3	1	20	BEG	-4972.	559.	-4825.	-50030.	-64812.	-63314.	.0285	.0122	.0266	-.0005	.0003	.0004
3	1	25	END	4972.	-559.	4825.	221704.	64812.	-113599.	.0431	.0122	.0442	-.0005	.0003	.0004
3	2	30	END	4972.	-559.	4825.	393379.	64812.	-290512.	.0570	.0122	.0606	-.0004	.0003	.0004
4	1	30	BEG	-3910.	786.	-3696.	-393379.	-64812.	290512.	.0570	.0122	.0606	-.0004	.0003	.0004
4	1	35	END	3910.	-786.	3696.	524876.	64812.	-429622.	.0693	.0122	.0747	-.0003	.0003	.0003
4	2	40	END	3910.	-786.	3696.	656373.	64812.	-568732.	.0790	.0122	.0858	-.0003	.0003	.0002
5	1	40	BEG	-2437.	1012.	-2097.	-656373.	-64812.	568732.	.0790	.0122	.0858	-.0003	.0003	.0002
5	1	45	END	2437.	-1012.	2097.	731000.	64812.	-655450.	.0855	.0121	.0931	-.0001	.0003	.0001
5	2	50	END	2437.	-1012.	2097.	805627.	64812.	-742167.	.0882	.0121	.0962	-.0000	.0004	.0000
6	1	50	BEG	51.	1354.	615.	-805627.	-64812.	742167.	.0862	.0121	.0962	-.0000	.0004	.0000
6	1	55	END	-51.	-1354.	-615.	768736.	64812.	-739087.	.0830	.0121	.0908	.0002	.0004	-.0002
6	2	57	END	-51.	-1354.	-615.	728775.	64812.	-735751.	.0677	.0121	.0749	.0003	.0004	-.0003
7	1	57	BEG	6445.	2494.	7692.	-728775.	-64812.	735751.	.0677	.0121	.0749	.0003	.0004	-.0003
7	1	60	END	-6445.	-2494.	-7692.	423997.	64812.	-480371.	.0535	.0120	.0604	.0004	.0004	-.0004
7	2	65	END	-6445.	-2494.	-7692.	119219.	64812.	-224991.	.0359	.0126	.0429	.0004	.0004	-.0005
7	3	70	END	-6445.	-2494.	-7692.	-139593.	64812.	-8127.	.0197	.0126	.0272	.0004	.0004	-.0005
8	1	70	BEG	6921.	2783.	8350.	139593.	-64812.	8127.	.0197	.0126	.0272	.0004	.0004	-.0005
8	1	75	END	-6921.	-2783.	-8350.	-144603.	64812.	-3975.	.0194	.0126	.0269	.0004	.0004	-.0005
8	2	80	END	-6921.	-2783.	-8350.	-506646.	-342784.	431975.	-.0001	.0006	.0012	.0000	.0001	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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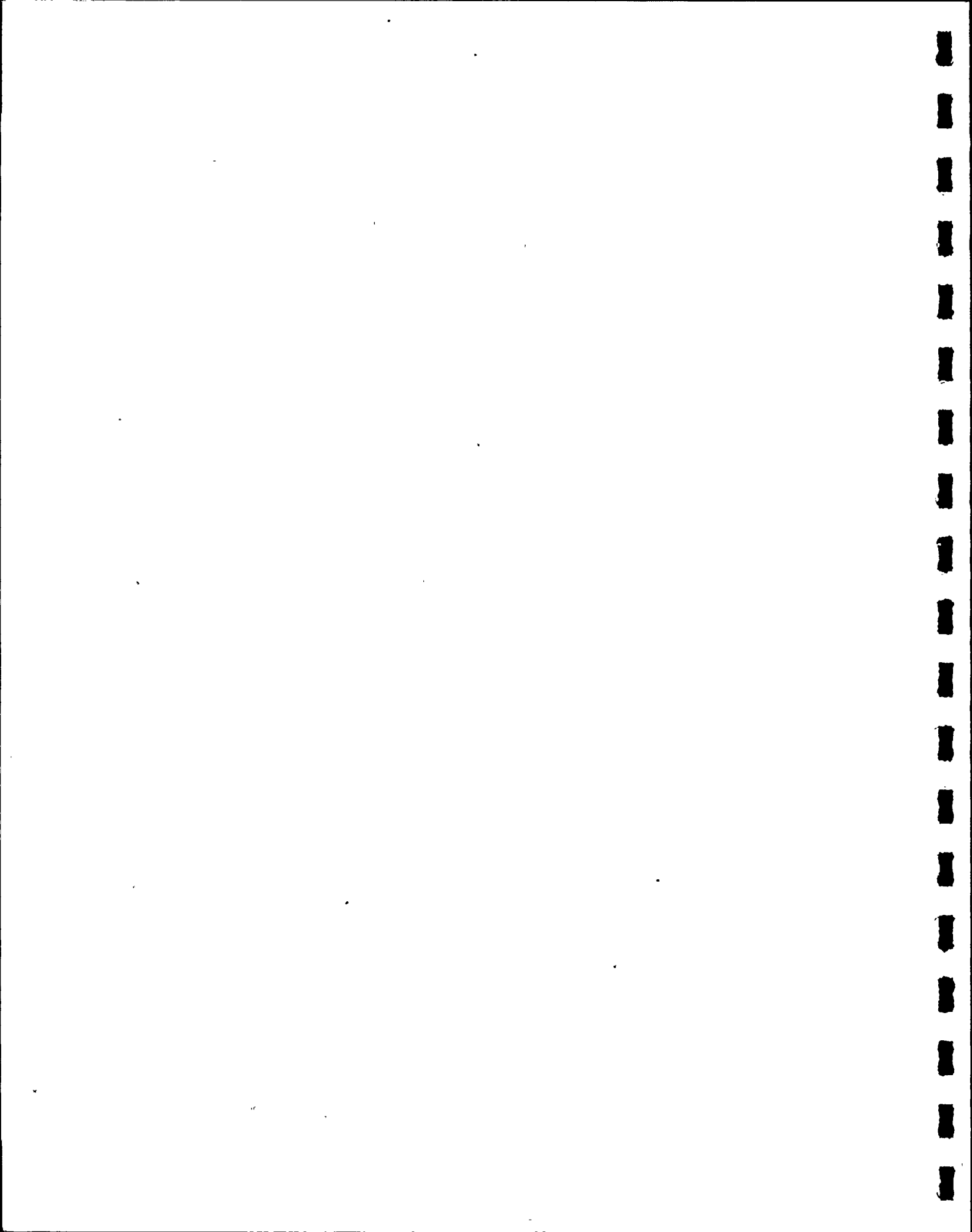
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-6921.	-2783.	-8350.	-506466.	-348202.	433629.	-.0001	.0006	.0011	.0000	.0000	-.0000
9	1	85	BEG	6914.	2833.	8448.	506466.	348202.	-433629.	-.0001	.0006	.0011	.0000	.0000	-.0000
9	1	86	END	-6914.	-2833.	-8448.	-497764.	-598664.	510481.	-.0002	.0000	-.0001	.0000	.0000	-.0000
9	2	87	END	-6914.	-2833.	-8448.	-58482.	-598664.	150968.	.0000	.0000	.0000	.0000	.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-1410.	-500.	-192.	-6287.	71540.	121180.	.0285	.0122	.0266	-.0005	.0003	.0004
18	1	160	END	1410.	500.	192.	6287.	-77468.	-105722.	.0286	.0029	.0333	-.0005	.0002	.0002
18	2	165	END	1410.	500.	192.	6287.	-83396.	-90263.	.0286	-.0011	.0361	-.0005	.0000	.0001
18	3	167	END	1410.	500.	192.	6287.	-91154.	-70031.	.0286	-.0020	.0357	-.0005	-.0000	-.0000
19	1	167	BEG	-623.	-554.	790.	-6287.	91154.	70031.	.0286	-.0020	.0357	-.0005	-.0000	-.0000
19	1	170	END	623.	554.	-790.	6287.	-59481.	-47816.	.0287	.0011	.0304	-.0004	-.0002	-.0001
19	2	175	END	623.	554.	-790.	6287.	-27807.	-25600.	.0287	.0081	.0201	-.0004	-.0003	-.0002
20	1	175	BEG	-430.	-499.	925.	-6287.	27807.	25600.	.0287	.0081	.0201	-.0004	-.0003	-.0002
20	1	180	END	430.	499.	-925.	6287.	9290.	-5563.	.0287	.0174	.0074	-.0004	-.0003	-.0002
20	2	185	END	430.	499.	-925.	6287.	26961.	3953.	.0287	.0221	.0015	-.0004	-.0003	-.0002
20	3	190	END	430.	499.	-925.	18126.	37369.	15077.	.0265	.0344	-.0033	-.0003	-.0000	-.0002
21	1	190	BEG	-299.	-330.	909.	-18126.	-37389.	-15077.	.0265	.0344	-.0033	-.0003	-.0000	-.0002
21	1	195	END	299.	330.	-909.	18263.	37235.	15084.	.0265	.0345	-.0034	-.0003	-.0000	-.0002
21	2	200	END	299.	330.	-909.	18403.	37179.	15092.	.0265	.0346	-.0034	-.0003	-.0000	-.0002
21	3	205	END	299.	330.	-909.	26680.	11835.	8606.	.0286	.0366	-.0066	-.0002	.0002	-.0002
22	1	205	BEG	-201.	-205.	885.	-26680.	-11835.	-8606.	.0286	.0366	-.0068	-.0002	.0002	-.0002
22	1	210	END	201.	205.	-885.	26680.	2501.	6455.	.0286	.0348	-.0090	-.0002	.0002	-.0002
22	2	215	END	201.	205.	-885.	26680.	-6753.	4303.	.0286	.0331	-.0111	-.0002	.0002	-.0002
22	3	220	END	201.	205.	-885.	30983.	-29561.	-0.	.0311	.0320	-.0145	-.0000	.0000	-.0002
23	1	220	BEG	20.	23.	782.	-30983.	29561.	0.	.0311	.0320	-.0145	-.0000	.0000	-.0002
23	1	225	END	-20.	-23.	-782.	30609.	-29226.	-0.	.0315	.0324	-.0146	-.0000	.0000	-.0002
23	2	230	END	-20.	-23.	-782.	29754.	-28461.	-0.	.0309	.0319	-.0146	-.0000	-.0000	-.0002

ADLPIPE PAGE 38

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 38

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 FX FY FZ PX PY PZ DX DY DZ RX RY RZ
 (LB) (LB) (LB) (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)

23	3	235	END	-20.	-23.	-782.	28899.	-27697.	-0.	.0282	.0291	-.0146	.0001	-.0001	-.0002
23	2	240	END	-20.	-23.	-782.	28044.	-26932.	-0.	.0234	.0242	-.0147	.0002	-.0002	-.0002
24	1	240	BEG	240.	250.	644.	-28044.	26932.	0.	.0234	.0242	-.0147	.0002	-.0002	-.0002
24	1	245	END	-240.	-250.	-644.	18696.	-17955.	0.	.0167	.0173	-.0147	.0002	-.0002	-.0002
24	2	250	END	-240.	-250.	-644.	9346.	-8977.	0.	.0087	.0096	-.0147	.0002	-.0002	-.0002
24	3	255	OIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0147	.0002	-.0002	-.0002
24	3	255	END	-240.	-250.	-644.	-0.	0.	0.	-.0000	-.0000	-.0147	.0002	-.0002	-.0002

ADLPIPE PAGE 39

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MCDE 3 FREQUENCY 7.61



NET PT	SEG	NETWORK JOINT REACTIONS AND DEFLECTIONS											
		F _X (LB)	F _Y (LB)	F _Z (LB)	P _X (IN-LB)	P _Y (IN-LB)	P _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	-7079.	-284.	-5636.	324292.	-255599.	-407024.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	239.	147.	192.	0.	-0.	-0.	.0198	.0122	.0159	-.0005	.0003	.0004
3	20	458.	196.	427.	0.	-0.	-0.	.0285	.0122	.0266	-.0005	.0003	.0004
4	30	1062.	227.	1129.	0.	-0.	-0.	.0570	.0122	.0606	-.0004	.0003	.0004
5	40	1473.	226.	1598.	0.	0.	-0.	.0790	.0122	.0858	-.0003	.0003	.0002
6	50	2489.	342.	2712.	0.	-0.	-0.	.0882	.0121	.0962	-.0000	.0004	.0000
7	57	6394.	1140.	7077.	-0.	0.	0.	.0677	.0121	.0749	.0003	.0004	-.0003
8	70	476.	269.	658.	-0.	-0.	0.	.0197	.0120	.0272	.0004	.0004	-.0005
9	85	-7.	49.	98.	-0.	-0.	0.	-.0001	.0006	.0011	.0000	.0000	-.0000
10	87	-6914.	-2833.	-8448.	-58482.	-598664.	150968.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	787.	-54.	982.	-0.	-0.	-0.	.0286	-.0020	.0357	-.0005	-.0000	-.0000
20	175	143.	55.	135.	-0.	0.	0.	.0287	.0061	.0201	-.0004	-.0003	-.0002
21	190	130.	169.	-16.	0.	0.	0.	<u>.0265</u>	<u>.0344</u>	<u>-.0033</u>	-.0003	-.0000	-.0002
22	205	96.	125.	-23.	-0.	-0.	0.	.0286	.0366	-.0068	-.0002	.0002	-.0002
23	220	221.	228.	-104.	0.	-0.	-0.	.0311	.0320	-.0145	.0000	.0000	-.0002
24	240	220.	227.	-138.	-0.	0.	-0.	.0234	.0242	-.0147	.0002	-.0002	-.0002
25	255	-240.	-250.	-644.	-0.	0.	0.	-.0000	-.0000	-.0147	.0002	-.0002	-.0002



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDL 1 XYZ SHOCK
PCDE 3 FREQUENCY 7.61

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS			DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
	FX (LB)	FY (LB)	FZ (LB)						

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDL 1 XYZ SHOCK

LOADS
SHOCK



LOADS
SHOCK

SC	HE	SEQ	POS	MODE FX (LB)	FREQUENCY FY (LB)	FZ (LB)	8.61 HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-563.	-967.	434.	4956.	-14404.	-43412.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	563.	967.	-434.	-4386.	14019.	43292.	.0000	.0000	-.0000	-.0000	.0000	.0000
1	2	15	END	563.	967.	-434.	18684.	-14819.	8906.	.0013	.0000	-.0006	.0000	.0000	.0000
2	1	15	BEG	-544.	-967.	425.	-18684.	14819.	-8906.	.0013	.0000	-.0006	.0000	.0000	.0000
2	1	20	END	544.	967.	-425.	9767.	-14819.	-2510.	.0018	.0000	-.0011	.0000	.0000	.0000
3	1	20	BEG	-373.	-939.	375.	-11117.	11549.	-6406.	.0018	.0000	-.0011	.0000	.0000	.0000
3	1	25	END	373.	939.	-375.	-2241.	-11549.	-6654.	.0028	.0001	-.0021	.0000	.0000	.0000
3	2	30	END	373.	939.	-375.	-15600.	-11549.	-20114.	.0037	.0001	-.0031	.0000	.0000	.0000
4	1	30	BEG	-265.	-937.	302.	15600.	11549.	20114.	.0037	.0001	-.0031	.0000	.0000	.0000
4	1	35	END	265.	937.	-302.	-26340.	-11549.	-30236.	.0045	.0001	-.0040	.0000	.0000	.0000
4	2	40	END	265.	937.	-302.	-37081.	-11549.	-40359.	.0051	.0001	-.0047	.0000	.0000	.0000
5	1	40	BEG	-162.	-935.	190.	37081.	11549.	40359.	.0051	.0001	-.0047	.0000	.0000	.0000
5	1	45	END	162.	935.	-190.	-43845.	-11549.	-46131.	.0055	.0001	-.0052	.0000	.0000	.0000
5	2	50	END	162.	935.	-190.	-50609.	-11549.	-51904.	.0056	.0001	-.0055	.0000	-.0000	-.0000
6	1	50	BEG	42.	-931.	-7.	50609.	11549.	51904.	.0056	.0001	-.0055	.0000	-.0000	-.0000
6	1	55	END	-42.	931.	7.	-50205.	-11549.	-49403.	.0052	.0001	-.0052	-.0000	-.0000	-.0000
6	2	57	END	-42.	931.	7.	-49767.	-11549.	-46695.	.0040	.0002	-.0043	-.0000	-.0000	-.0000
7	1	57	BEG	529.	-912.	-527.	49767.	11549.	46695.	.0040	.0002	-.0043	-.0000	-.0000	-.0000
7	1	60	END	-529.	912.	527.	-28877.	-11549.	-25741.	.0030	.0002	-.0034	-.0000	-.0000	-.0000
7	2	65	END	-529.	912.	527.	-7987.	-11549.	-4787.	.0016	.0002	-.0023	-.0000	-.0000	-.0000
7	3	70	END	-529.	912.	527.	9753.	-11549.	13006.	.0006	.0002	-.0014	-.0000	-.0000	-.0000
8	1	70	BEG	553.	-905.	-569.	-9753.	11549.	-13006.	.0008	.0002	-.0014	-.0000	-.0000	-.0000
8	1	75	END	-553.	905.	569.	10094.	-11549.	13338.	.0008	.0002	-.0013	-.0000	-.0000	-.0000
8	2	80	END	-553.	905.	569.	31240.	11180.	-2290.	.0001	-.0001	-.0001	-.0000	-.0000	.0000

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 ARTHUR D. LITTLE INC.
 NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-553.	905.	569.	31181.	11482.	-2829.	.0001	-.0001	-.0001	-.0000	-.0000	.0000
9	1	85	BEG	559.	-913.	-575.	-31181.	-11482.	2829.	.0001	-.0001	-.0001	-.0000	-.0000	.0000
9	1	86	END	-559.	913.	575.	28376.	25360.	-27598.	.0001	-.0000	.0000	-.0000	-.0000	.0000
9	2	87	END	-559.	913.	575.	-1513.	25360.	-56688.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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 ARTHUR D. LITTLE INC.
 NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 43

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MX MY MZ DX DY DZ RX RY RZ
 (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-130.	-27.	26.	1351.	3269.	8917.	.0018	.0005	-.0011	.0000	.0000	.0000
18	1	160	END	130.	27.	-26.	-1351.	-3269.	-8917.	.0018	-.0005	-.0008	.0000	.0000	.0000
18	2	165	END	130.	27.	-26.	-1351.	-1675.	-7250.	.0018	-.0007	-.0006	.0000	.0000	-.0000
18	3	167	END	130.	27.	-26.	-1351.	-631.	-6159.	.0018	-.0006	-.0003	.0000	.0000	-.0000
19	1	167	BEG	-69.	-48.	14.	1351.	631.	6159.	.0018	-.0006	-.0003	.0000	.0000	-.0000
19	1	170	END	69.	48.	-14.	-1351.	-58.	-4247.	.0018	-.0001	-.0001	.0000	.0000	-.0000
19	2	175	END	69.	48.	-14.	-1351.	514.	-2336.	.0018	.0007	.0000	.0000	.0000	-.0000
20	1	175	BEG	-53.	-42.	15.	1351.	-514.	2336.	.0018	.0007	.0000	.0000	.0000	-.0000
20	1	180	END	53.	42.	-15.	-1351.	1101.	-665.	.0018	.0017	.0003	.0000	.0000	-.0000
20	2	185	END	53.	42.	-15.	-1351.	1380.	131.	.0018	.0022	.0004	.0000	.0000	-.0000
20	3	190	END	53.	42.	-15.	-456.	572.	1086.	.0022	.0021	.0007	.0000	.0000	-.0000
21	1	190	BEG	-40.	-25.	19.	456.	-572.	-1086.	.0022	.0027	.0007	.0000	.0000	-.0000
21	1	195	END	40.	25.	-19.	-447.	558.	1087.	.0022	.0027	.0007	.0000	.0000	-.0000
21	2	200	END	40.	25.	-19.	-438.	544.	1088.	.0022	.0027	.0007	.0000	.0000	-.0000
21	3	205	END	40.	25.	-19.	106.	-678.	630.	.0026	.0022	.0003	.0000	.0000	-.0000
22	1	205	BEG	-28.	-15.	20.	-106.	678.	-630.	.0026	.0022	.0003	.0000	.0000	-.0000
22	1	210	END	28.	15.	-20.	106.	-689.	473.	.0026	.0026	.0001	.0000	.0000	-.0000
22	2	215	END	28.	15.	-20.	106.	-1100.	315.	.0026	.0018	-.0000	.0000	.0000	-.0000
22	3	220	END	28.	15.	-20.	421.	-2111.	-0.	.0028	.0013	-.0003	.0000	.0000	-.0000
23	1	220	BEG	-3.	-3.	18.	-421.	2111.	0.	.0028	.0013	-.0003	.0000	.0000	-.0000
23	1	225	END	3.	3.	-18.	470.	-2157.	-0.	.0028	.0013	-.0003	.0000	.0000	-.0000
23	2	230	END	3.	3.	-16.	582.	-2263.	-0.	.0027	.0012	-.0003	.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MX MY MZ DX DY DZ RX RY RZ
 (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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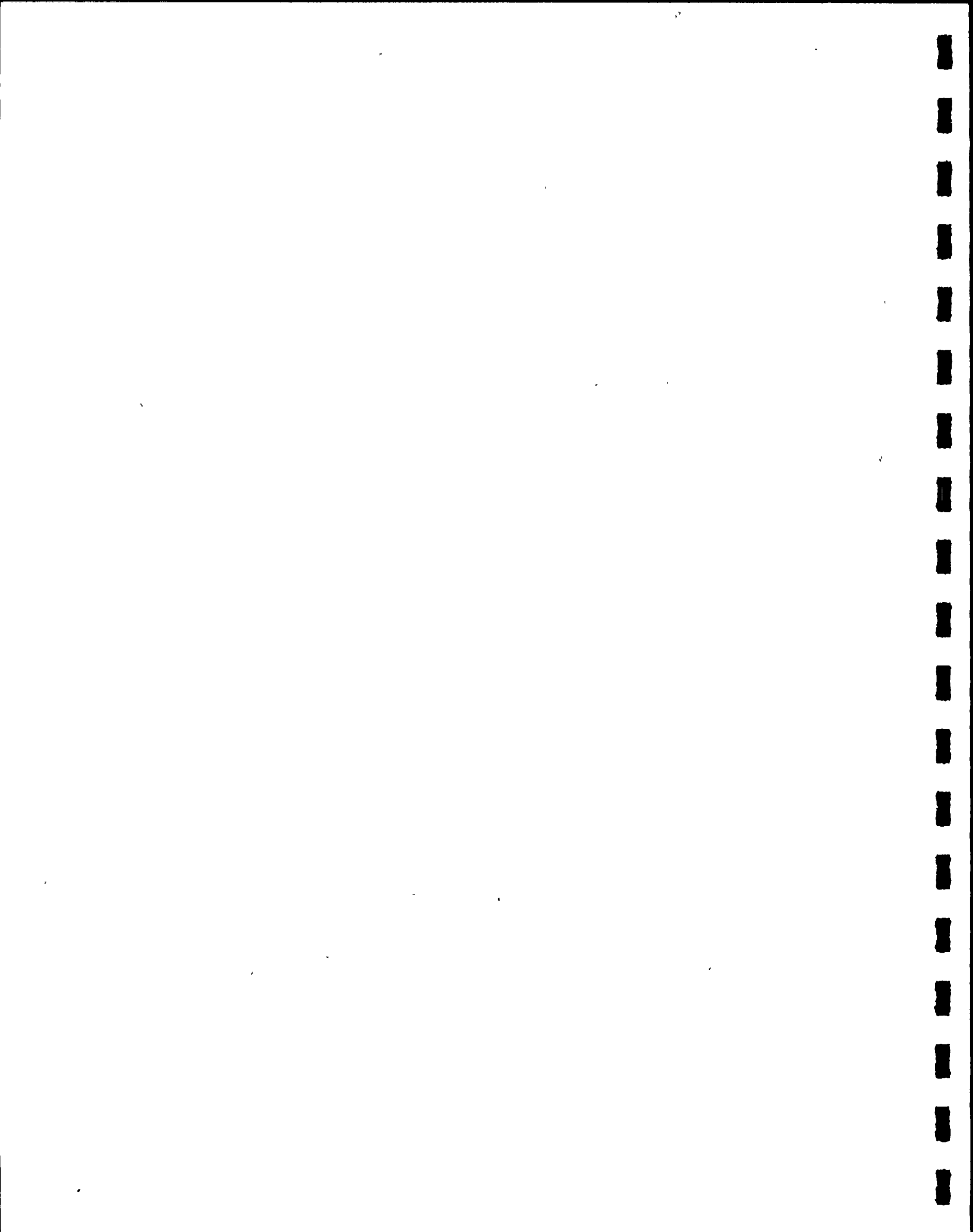
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK

SC	WE	SEQ	ROS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	3.	3.	-18.	695.	-2368.	-0.	.0025	.0010	-.0003	.0000	-.0000	-.0000
23	4	240	END	3.	3.	-18.	808.	-2474.	-0.	.0021	.0008	-.0003	.0000	-.0000	-.0000
24	1	240	BEG	22.	7.	15.	-808.	2474.	0.	.0021	.0008	-.0003	.0000	-.0000	-.0000
24	1	245	END	-22.	-7.	-15.	538.	-1649.	0.	.0015	.0006	-.0003	.0000	-.0000	-.0000
24	2	250	END	-22.	-7.	-15.	269.	-825.	0.	.0006	.0003	-.0003	.0000	-.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0003	.0000	-.0000	-.0000
24	3	255	END	-22.	-7.	-15.	-0.	0.	0.	-.0000	-.0000	-.0003	.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MCDE 4 FREQUENCY 8.61



NET PT SEG			NETWORK POINT REACTIONS AND DEFLECTIONS											
			F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5		-583.	-967.	434.	4956.	-14404.	-43412.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		19.	1.	-9.	-0.	-0.	-0.	.0013	.0000	-.0006	.0000	.0000	.0000
3	20		37.	1.	-23.	-0.	0.	-0.	.0018	.0000	-.0011	.0000	.0000	.0000
4	30		88.	2.	-74.	-0.	-0.	-0.	.0037	.0001	-.0031	.0000	.0000	.0000
5	40		122.	2.	-112.	-0.	-0.	-0.	.0051	.0001	-.0047	.0000	.0000	.0000
6	50		204.	4.	-197.	-0.	0.	0.	.0056	.0001	-.0055	.0000	-.0000	-.0000
7	57		487.	19.	-520.	0.	-0.	0.	.0040	.0002	-.0043	-.0000	-.0000	-.0000
8	70		24.	6.	-42.	0.	0.	0.	.0008	.0002	-.0014	-.0000	-.0000	-.0000
9	85		7.	-8.	-6.	0.	0.	-0.	.0001	-.0001	-.0001	-.0000	-.0000	.0000
10	87		-559.	913.	575.	-1513.	25360.	-56688.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167		64.	-21.	-12.	0.	-0.	-0.	.0018	-.0006	-.0003	.0000	.0000	-.0000
20	175		16.	6.	0.	-0.	-0.	0.	.0018	.0007	.0000	.0000	.0000	-.0000
21	190		14.	17.	4.	0.	0.	0.	.0022	.0027	.0007	.0000	.0000	-.0000
22	205		11.	10.	1.	-0.	-0.	0.	.0026	.0022	.0003	.0000	.0000	-.0000
23	220		25.	12.	-2.	-0.	-0.	0.	.0028	.0013	-.0003	.0000	.0000	-.0000
24	240		25.	10.	-3.	-0.	0.	-0.	.0021	.0008	-.0003	.0000	-.0000	-.0000
25	255		-22.	-7.	-15.	-0.	0.	0.	-.0000	-.0000	-.0003	.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDEL 1 XYZ SHOCK
MCDE 4 FREQUENCY 8.61

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS									RX (RAD)	RY (RAD)	RZ (RAD)
	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)			

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDEL 1 XYZ SHOCK

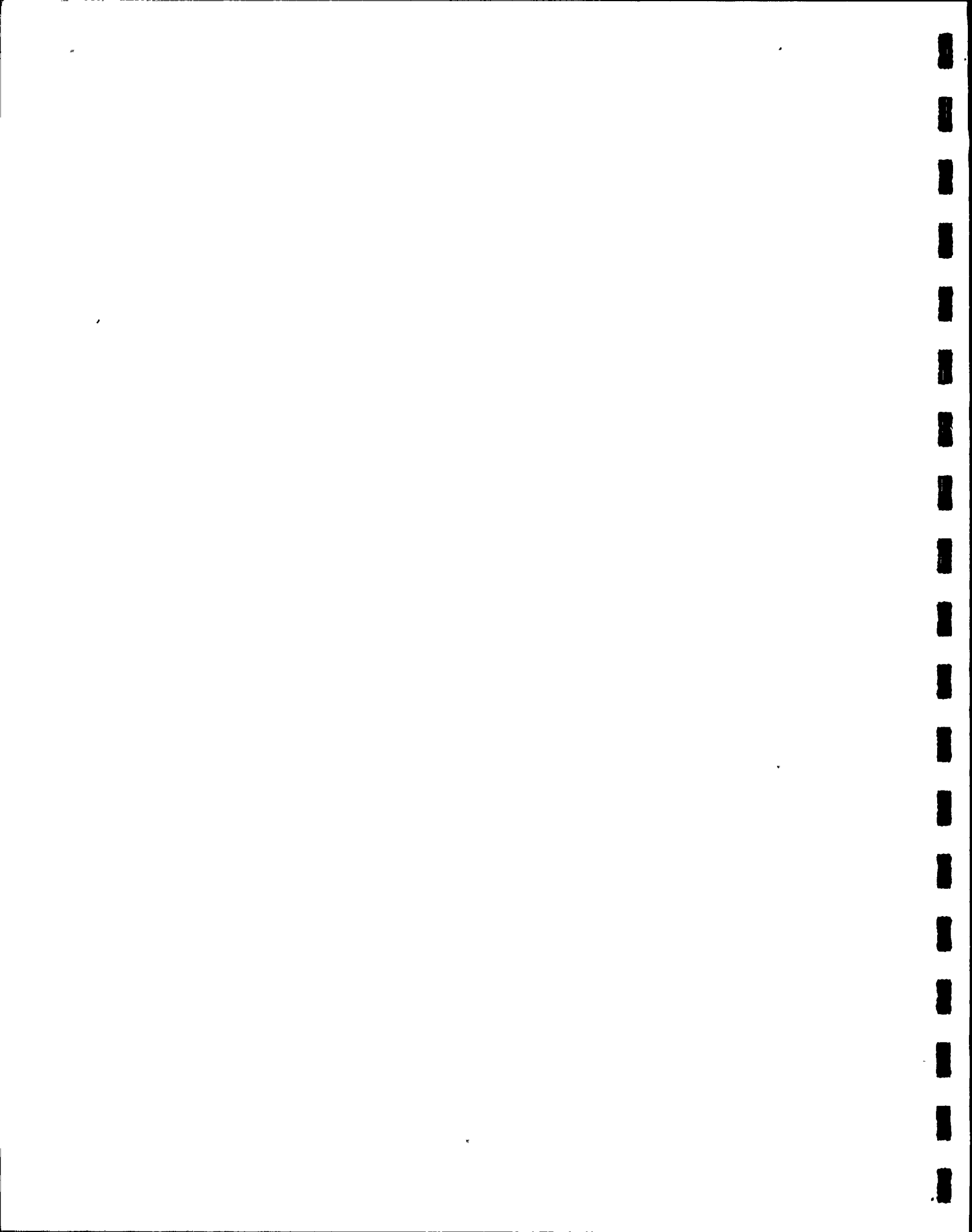
LOADS
SHOCK



LOADS
SHOCK

SC	HE	SEQ	POS	MCDE FX (LB)	5 FREQUENCY FY (LB)	FZ (LB)	11.59 KX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-150.	148.	-47.	-3135.	-9469.	1249.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	150.	-148.	47.	3048.	9386.	-1230.	.0000	-.0000	-.0000	.0000	.0000	-.0000
1	2	15	END	150.	-148.	47.	-1371.	3228.	-6587.	.0002	-.0000	-.0001	.0000	.0000	-.0000
2	1	15	BEG	-140.	147.	-49.	1371.	-3228.	6587.	.0002	-.0000	-.0001	.0000	.0000	-.0000
2	1	20	END	140.	-147.	49.	-341.	3228.	-9605.	.0002	-.0001	-.0001	.0000	.0000	-.0000
3	1	20	BEG	103.	139.	1.	603.	2105.	10199.	.0002	-.0001	-.0001	.0000	.0000	-.0000
3	1	25	END	-103.	-139.	-1.	-607.	-2105.	-6543.	.0001	-.0001	-.0001	-.0000	.0000	-.0000
3	2	30	END	-103.	-139.	-1.	-691.	-2105.	-2887.	-.0001	-.0001	-.0001	-.0000	.0000	-.0000
4	1	30	BEG	98.	137.	-2.	691.	2105.	2887.	-.0001	-.0001	-.0001	-.0000	.0000	-.0000
4	1	35	END	-98.	-137.	2.	-611.	-2105.	600.	-.0003	-.0001	-.0001	-.0000	.0000	-.0000
4	2	40	END	-98.	-137.	2.	-532.	-2105.	4086.	-.0005	-.0001	-.0001	-.0000	.0000	-.0000
5	1	40	BEG	78.	135.	-5.	532.	2105.	-4086.	-.0005	-.0001	-.0001	-.0000	.0000	-.0000
5	1	45	END	-78.	-135.	5.	-357.	-2105.	6855.	-.0006	-.0001	-.0000	-.0000	.0000	-.0000
5	2	50	END	-78.	-135.	5.	-182.	-2105.	9623.	-.0007	-.0001	-.0000	-.0000	.0000	-.0000
6	1	50	BEG	30.	130.	-7.	182.	2105.	-9623.	-.0007	-.0001	-.0000	-.0000	.0000	-.0000
6	1	55	END	-30.	-130.	7.	234.	-2105.	11416.	-.0008	-.0001	-.0000	-.0000	.0000	.0000
6	2	57	END	-30.	-130.	7.	689.	-2105.	13359.	-.0007	-.0001	.0000	-.0000	.0000	.0000
7	1	57	BEG	-125.	116.	-1.	-689.	2105.	-13359.	-.0007	-.0001	.0000	-.0000	.0000	.0000
7	1	60	END	125.	-116.	1.	736.	-2105.	8405.	-.0006	-.0001	.0000	-.0000	.0000	.0000
7	2	65	END	125.	-116.	1.	783.	-2105.	3451.	-.0004	-.0001	.0000	-.0000	.0000	.0000
7	3	70	END	125.	-116.	1.	822.	-2105.	-755.	-.0002	-.0001	.0001	-.0000	.0000	.0000
8	1	70	BEG	-135.	112.	2.	-822.	2105.	755.	-.0002	-.0001	.0001	-.0000	.0000	.0000
8	1	75	END	135.	-112.	-2.	821.	-2105.	-830.	-.0002	-.0001	.0001	-.0000	.0000	.0000
8	2	80	END	135.	-112.	-2.	1297.	-1513.	-1925.	-.0000	.0000	.0000	-.0000	.0000	-.0000

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	KX (IN-LB)	KY (IN-LB)	KZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	135.	-112.	-2.	1305.	-1505.	-1859.	-0.0000	0.0000	0.0000	-0.0000	0.0000	-0.0000
9	1	85	BEG	-137.	113.	3.	-1305.	1505.	1859.	-0.0000	0.0000	0.0000	-0.0000	0.0000	-0.0000
9	1	86	END	137.	-113.	-3.	1652.	-1153.	1210.	-0.0000	0.0000	0.0000	-0.0000	0.0000	-0.0000
9	2	87	END	137.	-113.	-3.	1784.	-1153.	8333.	0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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 ARTHUR D. LITTLE INC.
 NINE MILE NPS MODEL 1 XYZ SHOCK
 ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-240.	5.	-53.	-261.	-5333.	-594.	.0002	-.0001	-.0001	.0000	.0000	-.0000
18	1	160	END	240.	-5.	53.	261.	3683.	426.	.0002	.0000	.0003	.0000	.0000	-.0000
18	2	165	END	240.	-5.	53.	261.	2032.	258.	.0002	.0001	.0006	.0000	.0000	-.0000
18	3	167	END	240.	-5.	53.	261.	-128.	39.	.0002	.0001	.0016	.0000	.0000	-.0000
19	1	167	BEG	-227.	12.	47.	-261.	128.	-39.	.0002	.0001	.0016	.0000	.0000	-.0000
19	1	170	END	227.	-12.	-47.	261.	1748.	-450.	.0002	.0002	.0024	.0000	.0000	-.0000
19	2	175	END	227.	-12.	-47.	261.	3624.	-938.	.0002	.0002	.0033	.0000	.0000	-.0000
20	1	175	BEG	-223.	16.	98.	-261.	-3624.	938.	.0002	.0002	.0033	.0000	.0000	-.0000
20	1	180	END	223.	-16.	-98.	261.	7571.	-1575.	.0002	.0004	.0046	.0000	.0000	-.0000
20	2	185	END	223.	-16.	-98.	261.	9452.	-1878.	.0002	.0005	.0050	.0000	.0000	-.0000
20	3	190	END	223.	-16.	-98.	76.	6839.	-1878.	.0023	.0007	.0070	.0000	.0001	-.0000
21	1	190	BEG	-197.	24.	178.	-76.	-6839.	1878.	.0023	.0007	.0070	.0000	.0001	-.0000
21	1	195	END	197.	-24.	-178.	72.	6770.	-1873.	.0023	.0007	.0070	.0000	.0001	-.0000
21	2	200	END	197.	-24.	-178.	66.	6700.	-1866.	.0024	.0007	.0070	.0000	.0001	-.0000
21	3	205	END	197.	-24.	-178.	-171.	-1170.	-1065.	.0053	.0002	.0040	.0000	.0001	-.0000
22	1	205	BEG	-156.	25.	210.	171.	1170.	1065.	.0053	.0002	.0040	.0000	.0001	-.0000
22	1	210	END	156.	-25.	-210.	-171.	-3373.	-799.	.0053	-.0001	.0025	.0000	.0001	-.0000
22	2	215	END	156.	-25.	-210.	-171.	-5576.	-532.	.0053	-.0004	.0010	.0000	.0001	-.0000
22	3	220	END	156.	-25.	-210.	-704.	-13248.	0.	.0073	-.0011	-.0015	.0000	.0001	-.0000
23	1	220	BEG	-35.	7.	186.	704.	13248.	0.	.0073	-.0011	-.0015	.0000	.0001	-.0000
23	1	225	END	35.	-7.	-186.	-819.	-13621.	-0.	.0082	-.0011	-.0015	.0000	.0001	-.0000
23	2	230	END	35.	-7.	-186.	-1081.	-15129.	-0.	.0096	-.0012	-.0015	-.0000	.0000	-.0000

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 ARTHUR D. LITTLE INC.
 NINE MILE NPS MODEL 1 XYZ SHOCK
 ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

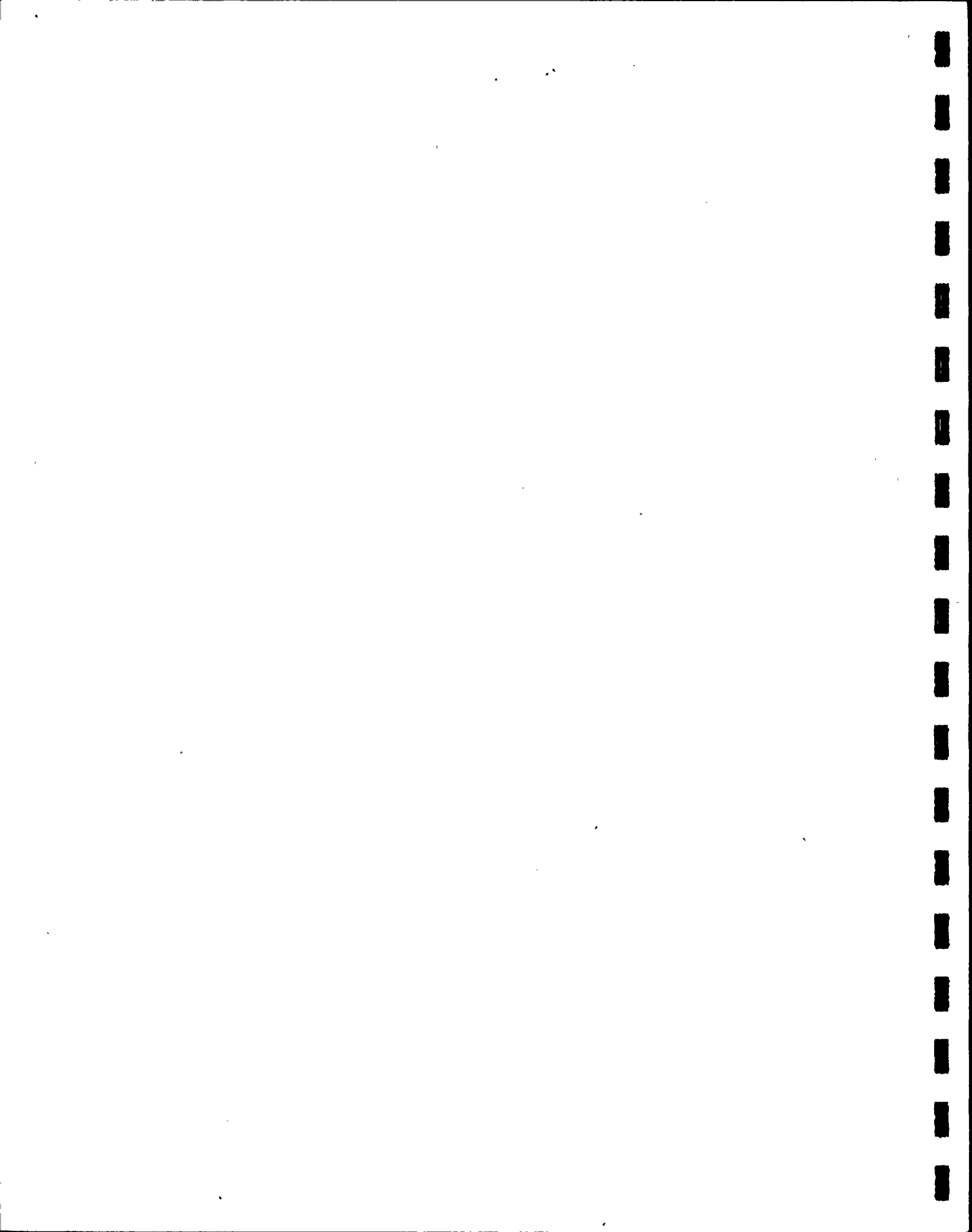
ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	35.	-7.	-186.	-1344.	-16437.	-0.	.0098	-.0011	-.0015	-.0000	-.0000	-.0000
23	4	240	END	35.	-7.	-186.	-1606.	-17745.	-0.	.0089	-.0010	-.0015	-.0000	-.0000	-.0000
24	1	240	BEG	158.	-14.	153.	1606.	17745.	0.	.0089	-.0010	-.0015	-.0000	-.0000	-.0000
24	1	245	END	-158.	14.	-153.	-1071.	-11830.	0.	.0066	-.0007	-.0015	-.0000	-.0001	-.0000
24	2	250	END	-158.	14.	-153.	-535.	-5915.	0.	.0035	-.0004	-.0015	-.0000	-.0001	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	0.0000	-.0015	-.0000	-.0001	-.0000
24	3	255	END	-158.	14.	-153.	0.	0.	0.	-.0000	0.0000	-.0015	-.0000	-.0001	-.0000

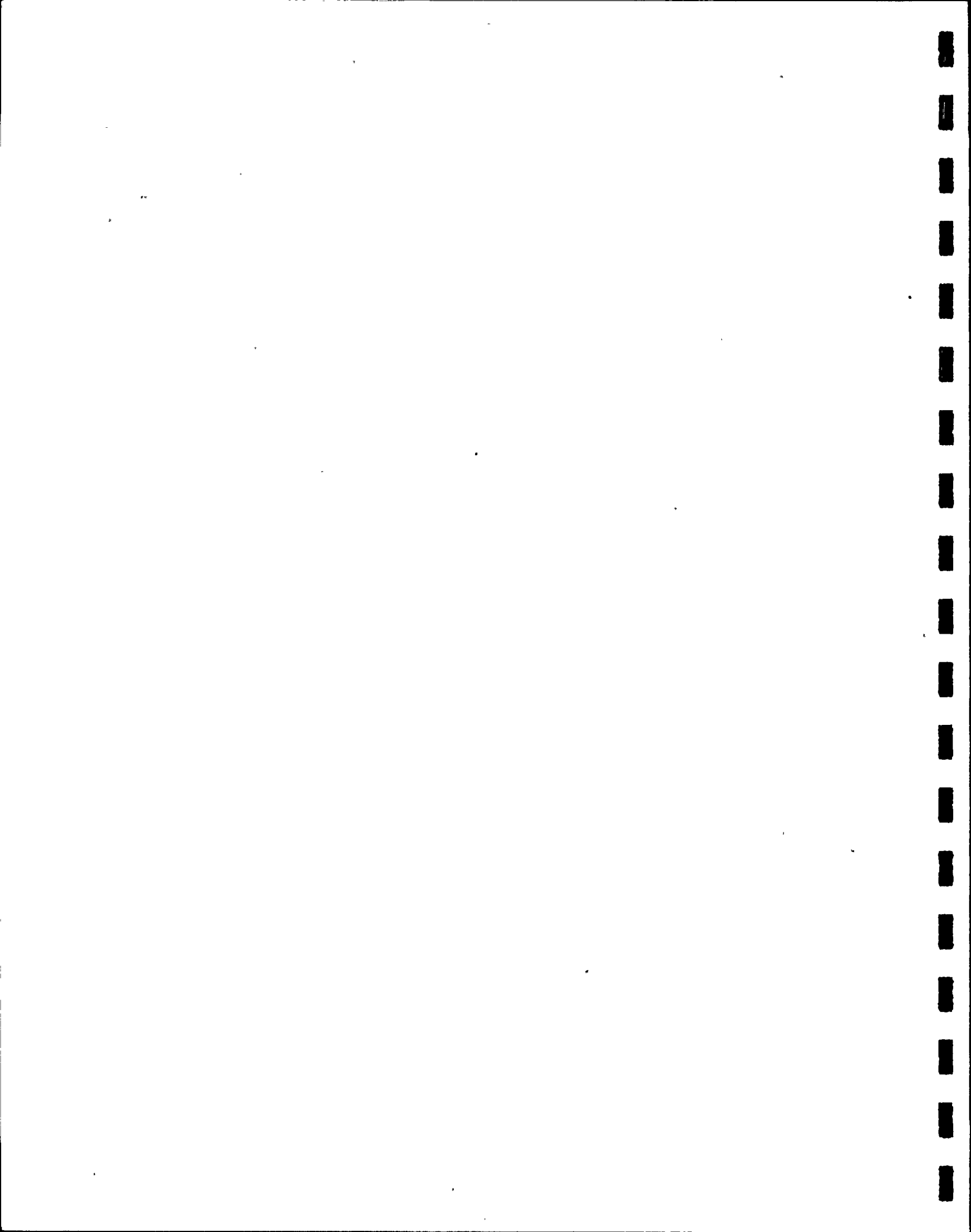
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ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK
MCDE 5 FREQUENCY 11.59

ADLPIPE STRESS ANALYSIS



NET PT SEG		NETWORK POINT REACTIONS AND DEFLECTIONS												
		F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)	
1	5	-150.	148.	-47.	-3135.	-9469.	1249.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	15	6.	-1.	-2.	-0.	-0.	0.	.0002	-.0000	-.0001	.0000	.0000	-.0000	
3	20	7.	-2.	-3.	0.	-0.	0.	.0002	-.0001	-.0001	.0000	.0000	-.0000	
4	30	-5.	-2.	-3.	0.	-0.	0.	-.0001	-.0001	-.0001	-.0000	.0000	-.0000	
5	40	-20.	-3.	-3.	0.	0.	0.	-.0005	-.0001	-.0001	-.0000	.0000	-.0000	
6	50	-48.	-4.	-2.	0.	0.	0.	-.0007	-.0001	-.0000	-.0000	.0000	-.0000	
7	57	-155.	-15.	6.	0.	-0.	-0.	-.0007	-.0001	.0000	-.0000	.0000	.0000	
8	70	-10.	-4.	3.	-0.	-0.	-0.	-.0002	-.0001	.0001	-.0000	.0000	.0000	
9	85	-2.	2.	1.	0.	0.	0.	-.0000	.0000	.0000	-.0000	.0000	-.0000	
10	87	137.	-113.	-3.	1784.	-1153.	6333.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
19	167	13.	7.	100.	0.	-0.	0.	.0002	.0001	.0016	.0000	.0000	-.0000	
20	175	3.	4.	52.	0.	-0.	0.	.0002	.0002	.0033	.0000	.0000	-.0000	
21	190	26.	8.	80.	-0.	0.	0.	.0023	.0007	.0070	.0000	.0001	-.0000	
22	205	42.	1.	32.	-0.	-0.	0.	.0053	.0002	.0040	.0000	.0001	-.0000	
23	220	121.	-18.	-24.	-0.	-0.	0.	.0073	-.0011	-.0015	.0000	.0001	-.0000	
24	240	193.	-21.	-32.	-0.	0.	-0.	.0089	-.0010	-.0015	-.0000	-.0000	-.0000	
25	255	-158.	14.	-153.	0.	0.	0.	-.0000	0.0000	-.0015	-.0000	-.0001	-.0000	



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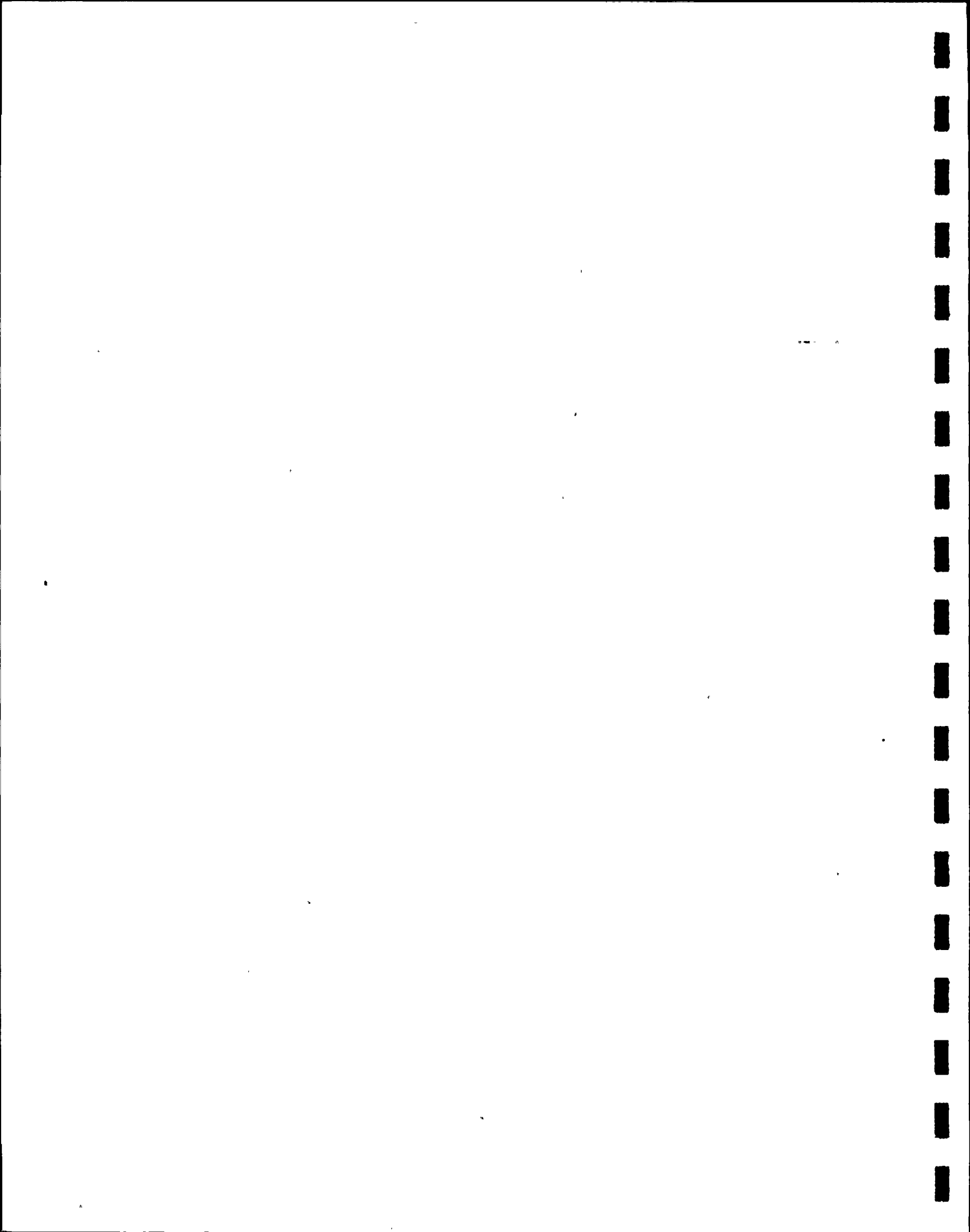
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDL 1 XYZ SHOCK
MCDE 5 FREQUENCY 11.59

NET PT SEC	NETWORK POINT REACTIONS AND DEFLECTIONS			DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
	FX (LB)	FY (LB)	FZ (LB)				

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDL 1 XYZ SHOCK

LOADS
SHOCK



ADLPIPE PAGE 53

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCCFL 1 XYZ SHOCK

LOADS
SHOCK

SC	HE	SEQ	POS	CODE FX (LB)	6 FREQUENCY FY (LB)	FZ (LB)	13.07 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-4.	-16.	-1.	426.	-36.	-128.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	4.	16.	1.	-416.	34.	128.	.0000	.0000	-0.0000	-0.0000	.0000	.0000
1	2	15	END	4.	16.	1.	293.	-122.	-185.	-0.0000	.0000	.0000	.0000	-0.0000	-0.0000
2	1	15	BEG	-4.	-15.	-0.	-293.	122.	185.	-0.0000	.0000	.0000	.0000	-0.0000	-0.0000
2	1	20	END	4.	15.	0.	300.	-122.	-262.	-0.0000	.0000	.0000	.0000	-0.0000	-0.0000
3	1	20	BEG	-6.	-4.	-2.	359.	-63.	-945.	-0.0000	.0000	.0000	.0000	-0.0000	-0.0000
3	1	25	END	6.	4.	2.	-279.	63.	725.	-0.0000	.0000	.0000	.0000	-0.0000	.0000
3	2	30	END	6.	4.	2.	-198.	63.	504.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000
4	1	30	BEG	-6.	-3.	-2.	198.	-63.	-504.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000
4	1	35	END	6.	3.	2.	-121.	63.	282.	.0000	.0000	.0000	-0.0000	-0.0000	.0000
4	2	40	END	6.	3.	2.	-45.	63.	60.	.0000	.0000	.0000	-0.0000	-0.0000	.0000
5	1	40	BEG	-6.	-3.	-2.	45.	-63.	-60.	.0000	.0000	.0000	-0.0000	-0.0000	.0000
5	1	45	END	6.	3.	2.	21.	63.	-139.	.0000	.0000	.0000	-0.0000	-0.0000	.0000
5	2	50	END	6.	3.	2.	88.	63.	-337.	.0000	.0000	.0000	-0.0000	.0000	.0000
6	1	50	BEG	-3.	-2.	-1.	-88.	-63.	337.	.0000	.0000	.0000	-0.0000	.0000	.0000
6	1	55	END	3.	2.	1.	154.	63.	-536.	.0000	.0000	.0000	-0.0000	.0000	.0000
6	2	57	END	3.	2.	1.	225.	63.	-755.	.0000	.0000	.0000	.0000	.0000	-0.0000
7	1	57	BEG	6.	-0.	2.	-225.	-63.	755.	.0000	.0000	.0000	.0000	.0000	-0.0000
7	1	60	END	-6.	0.	-2.	142.	63.	-510.	.0000	.0000	.0000	.0000	.0000	-0.0000
7	2	65	END	-6.	0.	-2.	59.	63.	-280.	.0000	.0000	.0000	.0000	.0000	-0.0000
7	3	70	END	-6.	0.	-2.	-12.	63.	-78.	.0000	.0000	.0000	.0000	.0000	-0.0000
8	1	70	BEG	7.	0.	2.	12.	-63.	78.	.0000	.0000	.0000	.0000	.0000	-0.0000
8	1	75	END	-7.	-0.	-2.	-13.	63.	-74.	.0000	.0000	.0000	.0000	.0000	-0.0000
8	2	80	END	-7.	-0.	-2.	-122.	-81.	253.	.0000	.0000	.0000	.0000	.0000	-0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	NX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 54

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
8	3	85	END	-7.	-0.	-2.	-122.	-83.	253.	.0000	.0000	.0000	.0000	.0000	-.0000
9	1	85	BEG	7.	1.	3.	122.	83.	-253.	.0000	.0000	.0000	.0000	.0000	-.0000
9	1	86	END	-7.	-1.	-3.	-121.	-174.	267.	.0000	.0000	.0000	.0000	.0000	-.0000
9	2	87	END	-7.	-1.	-3.	13.	-174.	-90.	.0000	0.0000	.0000	.0000	.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 55

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
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ADLPIPE PAGE 55

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	FX (IN-LB)	FY (IN-LB)	FZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	2.	-11.	2.	-660.	185.	1207.	-0.0000	0.0000	0.0000	0.0000	-0.0000	-0.0000
18	1	160	END	-2.	11.	-2.	660.	-121.	-853.	-0.0000	0.0000	-0.0000	0.0000	-0.0000	-0.0000
18	2	165	END	-2.	11.	-2.	660.	-56.	-499.	-0.0000	0.0001	-0.0000	0.0000	-0.0000	-0.0000
18	3	167	END	-2.	11.	-2.	660.	29.	-35.	-0.0000	0.0002	-0.0000	0.0000	-0.0000	-0.0000
19	1	167	BEG	2.	8.	-1.	-660.	-29.	35.	-0.0000	0.0002	-0.0000	0.0000	-0.0000	-0.0000
19	1	170	END	-2.	-8.	1.	660.	-3.	-359.	-0.0000	0.0004	-0.0001	0.0000	-0.0000	-0.0000
19	2	175	END	-2.	-8.	1.	660.	-35.	-682.	-0.0000	0.0005	-0.0001	0.0000	-0.0000	-0.0000
20	1	175	BEG	2.	19.	-2.	-660.	35.	682.	-0.0000	0.0005	-0.0001	0.0000	-0.0000	-0.0000
20	1	180	END	-2.	-19.	2.	660.	-125.	-1426.	-0.0000	0.0007	-0.0001	0.0000	-0.0000	-0.0000
20	2	185	END	-2.	-19.	2.	660.	-168.	-1781.	-0.0000	0.0009	-0.0001	0.0000	-0.0000	-0.0000
20	3	190	END	-2.	-19.	2.	267.	-169.	-2174.	-0.0000	0.0010	-0.0001	0.0000	-0.0000	-0.0000
21	1	190	BEG	2.	33.	-4.	-267.	169.	2174.	-0.0000	0.0010	-0.0001	0.0000	-0.0000	-0.0000
21	1	195	END	-2.	-33.	4.	256.	-168.	-2174.	-0.0000	0.0010	-0.0001	0.0000	-0.0000	-0.0000
21	2	200	END	-2.	-33.	4.	244.	-168.	-2174.	-0.0000	0.0010	-0.0001	0.0000	-0.0000	-0.0000
21	3	205	END	-2.	-33.	4.	-446.	-41.	-1490.	-0.0000	0.0003	-0.0001	0.0000	-0.0000	-0.0000
22	1	205	BEG	2.	35.	-5.	446.	41.	1490.	-0.0000	0.0003	-0.0001	0.0000	-0.0000	-0.0000
22	1	210	END	-2.	-35.	5.	-446.	7.	-1119.	-0.0000	-0.0000	-0.0000	0.0000	-0.0000	-0.0000
22	2	215	END	-2.	-35.	5.	-446.	56.	-745.	-0.0000	-0.0003	-0.0000	0.0000	-0.0000	-0.0000
22	3	220	END	-2.	-35.	5.	-1192.	190.	0.	-0.0001	-0.0011	0.0000	0.0000	-0.0000	-0.0000
23	1	220	BEG	1.	12.	-4.	1192.	-190.	0.	-0.0001	-0.0011	0.0000	0.0000	-0.0000	-0.0000
23	1	225	END	-1.	-12.	4.	-1387.	200.	-0.	-0.0001	-0.0012	0.0000	0.0000	-0.0000	-0.0000
23	2	230	END	-1.	-12.	4.	-1832.	223.	-0.	-0.0001	-0.0014	0.0000	0.0000	-0.0000	-0.0000

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ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	FX (IN-LB)	FY (IN-LB)	FZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 56

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCCEL 1 XYZ SHOCK

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-1.	-12.	4.	-2278.	246.	-0.	-.0001	-.0014	.0000	-.0000	-.0000	-.0000
23	4	240	END	-1.	-12.	4.	-2724.	268.	-0.	-.0001	-.0013	.0000	-.0000	.0000	-.0000
24	1	240	BEG	-2.	-24.	-3.	2724.	-268.	0.	-.0001	-.0013	.0000	-.0000	.0000	-.0000
24	1	245	END	2.	24.	3.	-1816.	179.	0.	-.0001	-.0010	.0000	-.0000	.0000	-.0000
24	2	250	END	2.	24.	3.	-908.	89.	0.	-.0000	-.0005	.0000	-.0000	.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	.0000	.0000	-.0000	.0000	-.0000
24	3	255	END	2.	24.	3.	0.	-0.	0.	.0000	.0000	.0000	-.0000	.0000	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCCEL 1 XYZ SHOCK
MCCEL 6 FREQUENCY 13.07



NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	-4.	-18.	-1.	428.	-36.	-128.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	-0.	0.	0.	0.	0.	0.	-0.0000	.0000	.0000	.0000	-0.0000	-0.0000
3	20	-0.	0.	0.	-0.	0.	0.	-0.0000	.0000	.0000	.0000	-0.0000	-0.0000
4	30	-0.	0.	0.	0.	0.	-0.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000
5	40	1.	0.	0.	0.	-0.	-0.	.0000	.0000	.0000	-0.0000	-0.0000	.0000
6	50	2.	1.	1.	0.	-0.	-0.	.0000	.0000	.0000	-0.0000	.0000	.0000
7	57	9.	2.	3.	-0.	0.	0.	.0000	.0000	.0000	.0000	.0000	-0.0000
8	70	1.	1.	0.	-0.	-0.	0.	.0000	.0000	.0000	.0000	.0000	-0.0000
9	85	0.	0.	0.	-0.	-0.	0.	.0000	.0000	.0000	.0000	.0000	-0.0000
10	87	-7.	-1.	-3.	13.	-174.	-90.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	-0.	20.	-3.	0.	0.	0.	-0.0000	.0002	-0.0000	.0000	-0.0000	-0.0000
20	175	-0.	10.	-1.	-0.	0.	0.	-0.0000	.0005	-0.0001	.0000	-0.0000	-0.0000
21	190	-0.	14.	-2.	0.	-0.	0.	-0.0000	.0010	-0.0001	.0000	-0.0000	-0.0000
22	205	-0.	3.	-1.	-0.	0.	0.	-0.0000	.0003	-0.0001	.0000	-0.0000	-0.0000
23	220	-1.	-24.	1.	-0.	0.	0.	-0.0001	-0.0011	.0000	.0000	-0.0000	-0.0000
24	240	-3.	-36.	1.	-0.	0.	-0.	-0.0001	-0.0013	.0000	-0.0000	.0000	-0.0000
25	255	2.	24.	3.	0.	-0.	0.	.0000	.0000	.0000	-0.0000	.0000	-0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
MCDE 6 FREQUENCY 13.07

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS			DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
	FX (LB)	FY (LB)	FZ (LB)				

ADLPIPE PAGE 59

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

LOADS
SHOCK

ADLPIPE PAGE 59

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

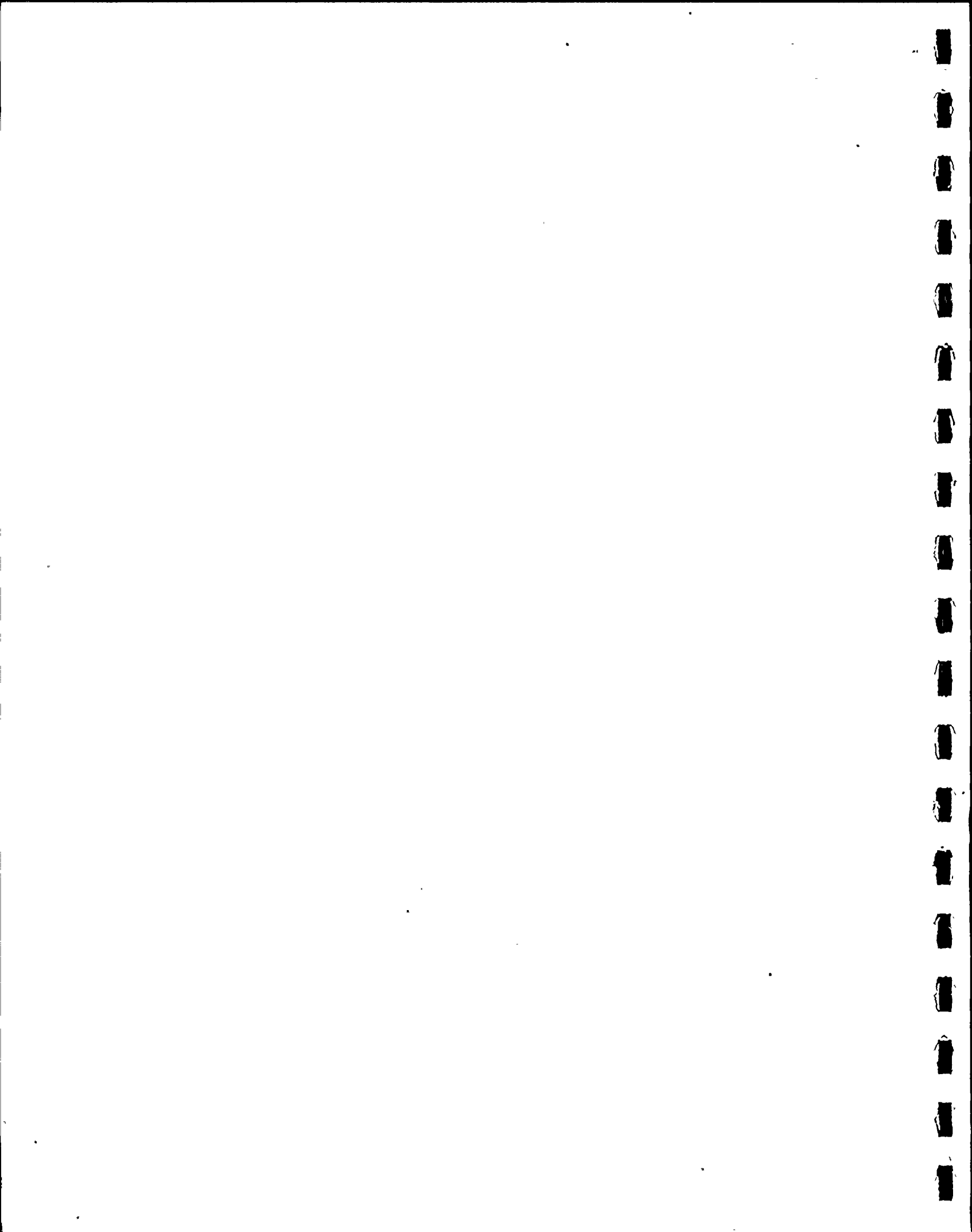
LOADS
SHOCK

SC	HE	SEQ	POS	MODE FX (LB)	7 FREQUENCY FY (LB)	FZ (LB)	13.84 HX (IN-LB)	MY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	2	15	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	15	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	20	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	25	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	2	30	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	30	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	35	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	2	40	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	40	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	45	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2	50	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	50	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	55	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	2	57	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	57	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	60	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	2	65	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	3	70	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	70	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	75	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	2	80	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC.
NINE MILE NPS MCDEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEG	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
8	3	85	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	85	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	86	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	2	87	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	87	BEG	-3172.	-956.	-4562.	-203582.	388085.	84426.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	3172.	956.	4562.	209007.	-262848.	-114525.	-0.0000	-0.0001	0.0002	0.0000	-0.0000	-0.0000
10	2	90	END	3172.	956.	4562.	181363.	-147352.	-119503.	0.0004	0.0002	0.0003	0.0000	-0.0000	-0.0000
11	1	90	BEG	-3088.	-902.	-4499.	-181363.	147352.	119503.	0.0004	0.0002	0.0003	0.0000	-0.0000	-0.0000
11	1	95	END	3088.	902.	4499.	180838.	-145084.	-119598.	0.0004	0.0002	0.0003	0.0000	-0.0000	-0.0000
11	2	100	END	3088.	902.	4499.	-61555.	27580.	12155.	0.0074	0.0050	0.0083	0.0002	-0.0001	-0.0001
12	1	100	BEG	-2261.	-345.	-3569.	61555.	-27580.	-12155.	0.0074	0.0050	0.0083	0.0002	-0.0001	-0.0001
12	1	105	END	2261.	345.	3569.	-115083.	27580.	46073.	0.0086	0.0050	0.0109	0.0002	-0.0001	-0.0001
12	2	107	END	2261.	345.	3569.	-311339.	27580.	170431.	0.0124	0.0050	0.0192	0.0001	-0.0001	-0.0001
13	1	107	BEG	-412.	462.	-696.	311339.	-27580.	-170431.	0.0124	0.0050	0.0192	0.0001	-0.0001	-0.0001
13	1	110	END	412.	-462.	696.	-336015.	27580.	185032.	0.0140	0.0050	0.0231	0.0001	-0.0001	-0.0000
13	2	115	END	412.	-462.	696.	-360690.	27580.	199633.	0.0146	0.0050	0.0251	0.0000	-0.0001	-0.0000
14	1	115	BEG	486.	708.	847.	360690.	-27580.	-199633.	0.0146	0.0050	0.0251	0.0000	-0.0001	-0.0000
14	1	120	END	-486.	-708.	-847.	-330647.	27580.	182408.	0.0140	0.0050	0.0250	-0.0000	-0.0001	0.0000
14	2	125	END	-486.	-708.	-847.	-300603.	27580.	165183.	0.0124	0.0050	0.0230	-0.0001	-0.0001	0.0001
15	1	125	BEG	1384.	1067.	2511.	300603.	-27580.	-165183.	0.0124	0.0050	0.0230	-0.0001	-0.0001	0.0001
15	1	130	END	-1384.	-1067.	-2511.	-180057.	27580.	98753.	0.0088	0.0049	0.0176	-0.0001	-0.0001	0.0001
15	2	135	END	-1384.	-1067.	-2511.	-59511.	27580.	32323.	0.0041	0.0049	0.0103	-0.0002	-0.0001	0.0001
16	1	135	BEG	1681.	1428.	3269.	59511.	-27580.	-32323.	0.0041	0.0049	0.0103	-0.0002	-0.0001	0.0001
16	1	140	END	-1681.	-1428.	-3269.	-17530.	27580.	10730.	0.0027	0.0049	0.0082	-0.0002	-0.0001	0.0001
16	2	145	END	-1681.	-1428.	-3269.	153819.	84061.	-102073.	-0.0001	0.0008	0.0006	-0.0000	-0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE NPS MCDEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEG	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
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ADLPIPE PAGE 61

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	-1681.	-1428.	-3269.	154862.	85105.	-103066.	-0.0001	0.0008	0.0006	-0.0000	-0.0000	0.0000
17	1	150	BEG	1676.	1465.	3295.	-154862.	-85105.	103066.	-0.0001	0.0008	0.0006	-0.0000	-0.0000	0.0000
17	1	155	END	-1676.	-1465.	-3295.	213341.	143496.	-158764.	0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000
18	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	160	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	2	165	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	3	167	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	167	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	170	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	2	175	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	175	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	180	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	2	185	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	3	190	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	190	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	195	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	2	200	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	3	205	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	205	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	210	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	2	215	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	3	220	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	220	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	225	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	2	230	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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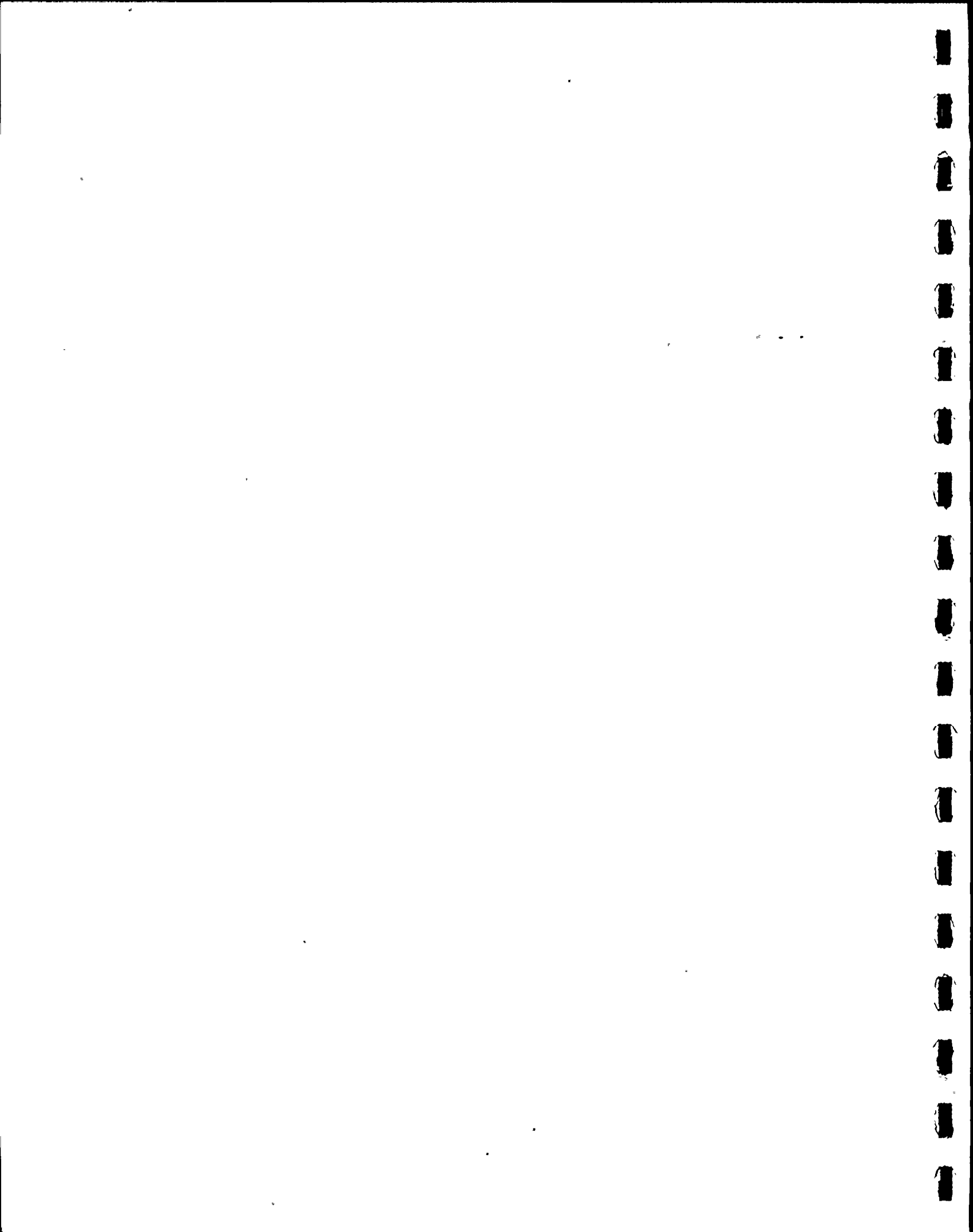
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

SC	ME	SEO	POS	FX (LB)	FY (LB)	FZ (LB)	NINE MILE MX (IN-LB)	NPS MY (IN-LB)	MODEL 1 MZ (IN-LB)	XYZ SHOCK DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	4	240	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	240	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	245	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	2	250	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MCCE 7 FREQUENCY 13.84



			NETWORK POINT REACTIONS AND DEFLECTIONS											
NET	PT	SEQ	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	20		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	30		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	40		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	50		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	57		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	70		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	85		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	87		-3172.	-956.	-4562.	-203582.	388485.	84426.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		84.	54.	63.	0.	0.	-0.	.0004	.0002	.0003	.0000	-.0000	-.0000
12	100		827.	556.	930.	-0.	0.	0.	.0074	.0050	.0023	.0002	-.0001	-.0001
13	107		1849.	747.	2873.	-0.	-0.	0.	.0124	.0050	.0192	.0001	-.0001	-.0001
14	115		898.	306.	1543.	-0.	-0.	-0.	.0146	.0050	.0251	.0000	-.0001	-.0000
15	125		898.	359.	1664.	0.	0.	-0.	.0124	.0050	.0230	-.0001	-.0001	.0001
16	135		297.	361.	757.	-0.	-0.	0.	.0041	.0049	.0103	-.0002	-.0001	.0001
17	150		-5.	37.	27.	0.	0.	-0.	-.0001	.0008	.0006	-.0000	-.0000	.0000
18	155		-1676.	-1465.	-3295.	213341.	143496.	-158764.	.0000	.0000	-.0000	-.0000	-.0000	-.0000
19	167		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	175		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	190		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	205		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	220		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	240		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	255		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
MCDE 7 FREQUENCY 13.84

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	NET*CRK POINT REACTIONS AND DEFLECTIONS	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

LOADS
SHOCK

ADLPIPE PAGE 65

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

LOADS
SHOCK

SC	ME	SEG	POS	MODE FX (LB)	8 FREQUENCY FY (LB)	FZ (LB)	15.60 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	2	15	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	15	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	20	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	25	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	2	30	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	30	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	35	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	2	40	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	40	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	45	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2	50	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	50	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	55	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	2	57	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	57	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	60	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	2	65	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	3	70	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	70	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	75	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	2	80	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	ME	SEG	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	85	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	86	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	2	87	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	87	BEG	-1000.	-677.	514.	-19169.	27360.	12107.	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
10	1	88	END	1000.	677.	-514.	23013.	-49221.	-33429.	-0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0000
10	2	90	END	1000.	677.	-514.	3430.	-22990.	-36956.	0.0001	0.0006	0.0000	0.0000	-0.0000	-0.0000
11	1	90	BEG	-983.	-670.	520.	-3430.	22990.	36956.	0.0001	0.0006	0.0000	0.0000	-0.0000	-0.0000
11	1	95	END	983.	670.	-520.	3040.	-22473.	-37026.	0.0001	0.0006	0.0000	0.0000	-0.0000	-0.0000
11	2	100	END	983.	670.	-520.	-3252.	16925.	1873.	0.0016	-0.0003	-0.0004	-0.0000	-0.0000	-0.0000
12	1	100	BEG	-751.	-708.	462.	3252.	-16925.	-1873.	0.0016	-0.0003	-0.0004	-0.0000	-0.0000	-0.0000
12	1	105	END	751.	708.	-462.	3683.	16925.	13134.	0.0020	-0.0003	-0.0007	-0.0000	-0.0000	-0.0000
12	2	107	END	751.	708.	-462.	29108.	16925.	54423.	0.0033	-0.0003	-0.0017	-0.0000	-0.0000	-0.0000
13	1	107	BEG	-118.	-757.	140.	-29108.	-16925.	-54423.	0.0033	-0.0003	-0.0017	-0.0000	-0.0000	-0.0000
13	1	110	END	118.	757.	-140.	34066.	16925.	58620.	0.0039	-0.0002	-0.0022	-0.0000	-0.0000	-0.0000
13	2	115	END	118.	757.	-140.	39024.	16925.	62816.	0.0042	-0.0002	-0.0025	-0.0000	-0.0000	-0.0000
14	1	115	BEG	206.	-776.	-57.	-39024.	-16925.	-62816.	0.0042	-0.0002	-0.0025	-0.0000	-0.0000	-0.0000
14	1	120	END	-206.	776.	57.	36991.	16925.	55521.	0.0040	-0.0002	-0.0026	0.0000	-0.0000	0.0000
14	2	125	END	-206.	776.	57.	34957.	16925.	48226.	0.0036	-0.0002	-0.0025	0.0000	0.0000	0.0000
15	1	125	BEG	535.	-795.	-286.	-34957.	-16925.	-48226.	0.0036	-0.0002	-0.0025	0.0000	0.0000	0.0000
15	1	130	END	-535.	795.	286.	21218.	16925.	22542.	0.0026	-0.0002	-0.0020	0.0000	0.0000	0.0000
15	2	135	END	-535.	795.	286.	7479.	16925.	-3143.	0.0013	-0.0002	-0.0013	0.0000	0.0000	0.0000
16	1	135	BEG	555.	-812.	-408.	-7479.	-16925.	3143.	0.0013	-0.0002	-0.0013	0.0000	0.0000	0.0000
16	1	140	END	-655.	812.	408.	2245.	16925.	-11557.	0.0009	-0.0002	-0.0011	0.0000	0.0000	0.0000
16	2	145	END	-655.	812.	408.	-31837.	-7459.	-17752.	0.0001	-0.0001	-0.0001	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 67

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	-655.	812.	408.	-32202.	-7909.	-17441.	.0001	-.0001	-.0001	.0000	.0000	.0000
17	1	150	BEG	659.	-819.	-416.	32202.	7909.	17441.	.0001	-.0001	-.0001	.0000	.0000	.0000
17	1	155	END	-659.	819.	416.	-52535.	-33062.	-132.	0.0000	-.0000	-.0000	-.0000	.0000	-.0000
18	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	160	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	2	165	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	3	167	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	167	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	170	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	2	175	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	175	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	180	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	2	185	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	3	190	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	190	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	195	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	2	200	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	3	205	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	205	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	210	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	2	215	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	3	220	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	220	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	225	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	2	230	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 HX HY HZ DX DY DZ RX RY RZ
 (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)

SC	HE	SEG	POS	Fx (LB)	Fy (LB)	Fz (LB)	Hx (IN-LB)	Hy (IN-LB)	Hx (IN-LB)	Dx (IN)	Dy (IN)	Dz (IN)	Rx (RAD)	Ry (RAD)	Rz (RAD)
23	3	235	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	4	240	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	240	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	245	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	2	250	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MOCE 8 FREQUENCY 15.60

			NETWORK POINT REACTIONS AND DEFLECTIONS											
NET	PT	SEC	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	20		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	30		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	40		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	50		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	57		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	70		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	65		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	87		-1000.	-677.	514.	-19169.	27360.	12107.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		16.	7.	5.	-0.	0.	-0.	.0001	.0000	.0000	.0000	-.0000	-.0000
12	100		233.	-38.	-57.	0.	0.	0.	.0016	-.0003	-.0004	-.0000	-.0000	-.0000
13	107		632.	-49.	-322.	0.	0.	0.	.0033	-.0003	-.0017	-.0000	-.0000	-.0000
14	115		324.	-18.	-197.	0.	-0.	0.	.0042	-.0002	-.0025	-.0000	-.0000	-.0000
15	125		329.	-20.	-229.	-0.	0.	-0.	.0036	-.0002	-.0025	.0000	.0000	.0000
16	135		120.	-17.	-121.	0.	0.	0.	.0013	-.0002	-.0013	.0000	.0000	.0000
17	150		4.	-7.	-8.	-0.	-0.	0.	.0001	-.0001	-.0001	.0000	.0000	.0000
18	155		-659.	819.	416.	-52535.	-33062.	-132.	0.0000	-.0000	-.0000	-.0000	.0000	-.0000
19	167		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	175		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	190		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	205		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	220		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	240		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	255		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
PCDE 8 FREQUENCY 15.60

NET PT SEQ	F _X	F _Y	F _Z	NETWORK POINT REACTIONS AND DEFLECTIONS					D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
	(LB)	(LB)	(LB)	H _X (IN-LB)	M _Y (IN-LB)	K _Z (IN-LB)	O _X (IN)	O _Y (IN)				

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

LOADS
SHOCK

LOADS
SHOCK

SC	HE	SEQ	POS	MODE FX (LB)	9 FREQUENCY EY (LB)	FZ (LB)	15.93 MX (IN-LB)	PY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	68.	10.	-191.	4464.	-3830.	5562.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-68.	-10.	191.	-4470.	3894.	-5561.	-0.0000	-0.0000	0.0000	-0.0000	0.0000	-0.0000
1	2	15	END	-68.	-10.	191.	3668.	8654.	-2425.	0.0001	0.0001	0.0001	-0.0000	0.0000	-0.0000
2	1	15	BEG	72.	15.	-185.	-3668.	-8654.	2425.	0.0001	0.0001	0.0001	-0.0000	0.0000	-0.0000
2	1	20	END	-72.	-15.	185.	7561.	8654.	-910.	0.0001	0.0001	0.0001	-0.0000	0.0000	-0.0000
3	1	20	BEG	8.	50.	37.	-7048.	2645.	-353.	0.0001	0.0001	0.0001	-0.0000	0.0000	-0.0000
3	1	25	END	-8.	-50.	-37.	6125.	-2645.	851.	0.0000	0.0001	0.0002	-0.0000	0.0000	-0.0000
3	2	30	END	-8.	-50.	-37.	4801.	-2645.	949.	-0.0000	0.0001	0.0001	0.0000	0.0000	-0.0000
4	1	30	BEG	7.	57.	48.	-4801.	2645.	-949.	-0.0000	0.0001	0.0001	0.0000	0.0000	-0.0000
4	1	35	END	-7.	-57.	-48.	3078.	-2645.	1214.	-0.0000	0.0001	0.0001	0.0000	0.0000	-0.0000
4	2	40	END	-7.	-57.	-48.	1355.	-2645.	1478.	-0.0001	0.0001	0.0000	0.0000	0.0000	-0.0000
5	1	40	BEG	2.	64.	51.	-1355.	2645.	-1478.	-0.0001	0.0001	0.0000	0.0000	0.0000	-0.0000
5	1	45	END	-2.	-64.	-51.	-443.	-2645.	1562.	-0.0001	0.0001	-0.0000	0.0000	0.0000	-0.0000
5	2	50	END	-2.	-64.	-51.	-2242.	-2645.	1646.	-0.0001	0.0001	-0.0001	0.0000	0.0000	0.0000
6	1	50	BEG	-8.	74.	36.	2242.	2645.	-1646.	-0.0001	0.0001	-0.0001	0.0000	0.0000	0.0000
6	1	55	END	8.	-74.	-36.	-4417.	-2645.	1194.	-0.0001	0.0001	-0.0002	0.0000	0.0000	0.0000
6	2	57	END	8.	-74.	-36.	-6772.	-2645.	706.	-0.0000	0.0001	-0.0002	0.0000	0.0000	0.0000
7	1	57	BEG	-22.	106.	-60.	6772.	2645.	-706.	-0.0000	0.0001	-0.0002	0.0000	0.0000	0.0000
7	1	60	END	22.	-106.	60.	-4391.	-2645.	-169.	-0.0000	0.0001	-0.0002	-0.0000	0.0000	0.0000
7	2	65	END	22.	-106.	60.	-2010.	-2645.	-1043.	0.0000	0.0001	-0.0002	-0.0000	0.0000	0.0000
7	3	70	END	22.	-106.	60.	12.	-2645.	-1786.	0.0000	0.0001	-0.0001	-0.0000	-0.0000	0.0000
8	1	70	BEG	-19.	114.	-70.	-12.	2645.	1786.	0.0000	0.0001	-0.0001	-0.0000	-0.0000	0.0000
8	1	75	END	19.	-114.	70.	55.	-2645.	-1798.	0.0000	0.0001	-0.0001	-0.0000	-0.0000	0.0000
8	2	80	END	19.	-114.	70.	3780.	590.	2432.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	PY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	FX (IN-LB)	FY (IN-LB)	FZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	19.	-114.	70.	3788.	639.	2499.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000
9	1	85	BEG	-23.	118.	-72.	-3788.	-639.	-2499.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000
9	1	86	END	23.	-118.	72.	4151.	2666.	5712.	-0.0000	0.0000	0.0000	-0.0000	-0.0000	-0.0000
9	2	87	END	23.	-118.	72.	400.	2666.	6897.	0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	FX (IN-LB)	FY (IN-LB)	FZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 73

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	68.	-29.	-213.	-112.	-11298.	1264.	.0001	.0001	.0001	-.0000	.0000	-.0000
18	1	160	END	-68.	29.	213.	112.	4727.	-361.	.0001	.0001	.0006	-.0000	.0000	-.0000
18	2	165	END	-68.	29.	213.	112.	-1844.	541.	.0001	.0002	.0013	-.0000	.0000	-.0000
18	3	167	END	-68.	29.	213.	112.	-10445.	1721.	.0001	.0003	.0021	-.0000	.0000	-.0000
19	1	167	BEG	75.	8.	44.	-112.	10445.	-1721.	.0001	.0003	.0021	-.0000	.0000	-.0000
19	1	170	END	-75.	-8.	-44.	112.	-8665.	1385.	.0001	.0003	.0024	-.0000	-.0000	.0000
19	2	175	END	-75.	-8.	-44.	112.	-6885.	1049.	.0000	.0002	.0019	.0000	-.0000	.0000
20	1	175	BEG	76.	13.	101.	-112.	6885.	-1049.	.0000	.0002	.0019	.0000	-.0000	.0000
20	1	180	END	-76.	-13.	-101.	112.	-2836.	512.	.0000	-.0000	.0009	.0000	-.0000	.0000
20	2	185	END	-76.	-13.	-101.	112.	-907.	257.	.0000	-.0002	.0003	.0000	-.0000	.0000
20	3	190	END	-76.	-13.	-101.	-17.	2806.	-138.	-.0006	-.0003	-.0004	.0000	-.0000	.0000
21	1	190	BEG	63.	6.	92.	17.	-2806.	138.	-.0006	-.0003	-.0004	.0000	-.0000	.0000
21	1	195	END	-63.	-6.	-92.	-16.	2828.	-139.	-.0006	-.0003	-.0004	.0000	-.0000	.0000
21	2	200	END	-63.	-6.	-92.	-16.	2850.	-141.	-.0006	-.0003	-.0004	.0000	-.0000	.0000
21	3	205	END	-63.	-6.	-92.	-6.	2236.	-107.	-.0009	-.0002	-.0002	.0000	.0000	.0000
22	1	205	BEG	49.	3.	89.	6.	-2236.	107.	-.0009	-.0002	-.0002	.0000	.0000	.0000
22	1	210	END	-49.	-3.	-89.	-6.	1306.	-80.	-.0009	-.0002	-.0003	.0000	.0000	.0000
22	2	215	END	-49.	-3.	-89.	-6.	376.	-53.	-.0009	-.0001	-.0003	.0000	.0000	.0000
22	3	220	END	-49.	-3.	-89.	-60.	-449.	-0.	-.0009	-.0000	-.0003	.0000	-.0000	.0000
23	1	220	BEG	20.	1.	79.	60.	449.	-0.	-.0009	-.0000	-.0003	.0000	-.0000	.0000
23	1	225	END	-20.	-1.	-79.	-81.	-116.	0.	-.0010	-.0001	-.0003	.0000	-.0000	.0000
23	2	230	END	-20.	-1.	-79.	-130.	646.	0.	-.0010	-.0001	-.0003	.0000	-.0000	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

SC	PE	SEG	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	OX (IN)	OY (IN)	OZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-20.	-1.	-79.	-180.	1408.	0.	-.0010	-.0001	-.0003	.0000	.0000	.0000
23	4	240	END	-20.	-1.	-79.	-229.	2170.	0.	-.0010	-.0001	-.0003	-.0000	.0000	.0000
24	1	240	BEG	-19.	-2.	65.	229.	-2170.	0.	-.0010	-.0001	-.0003	-.0000	.0000	.0000
24	1	245	END	19.	2.	-65.	-153.	1447.	0.	-.0007	-.0001	-.0003	-.0000	.0000	.0000
24	2	250	END	19.	2.	-65.	-76.	723.	0.	-.0004	-.0000	-.0003	-.0000	.0000	.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	.0000	-.0003	-.0000	.0000	.0000
24	3	255	END	19.	2.	-65.	0.	-0.	0.	.0000	.0000	-.0003	-.0000	.0000	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 PCDE 9 FREQUENCY 15.93

			NETWORK POINT REACTIONS AND DEFLECTIONS											
NET	PT	SEQ	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5		68.	10.	-191.	4464.	-3830.	5562.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		5.	5.	5.	0.	-0.	0.	.0001	.0001	.0001	-.0000	.0000	-.0000
3	20		4.	6.	10.	0.	-0.	0.	.0001	.0001	.0001	-.0000	.0000	-.0000
4	30		-1.	7.	11.	-0.	-0.	0.	-.0000	.0001	.0001	.0000	.0000	-.0000
5	40		-5.	7.	2.	-0.	0.	0.	-.0001	.0001	.0000	.0000	.0000	-.0000
6	50		-10.	10.	-14.	-0.	0.	-0.	-.0001	.0001	-.0001	.0000	.0000	.0000
7	57		-15.	32.	-96.	-0.	0.	-0.	-.0000	.0001	-.0002	.0000	.0000	.0000
8	70		3.	8.	-10.	0.	0.	-0.	.0000	.0001	-.0001	-.0000	-.0000	.0000
9	85		-3.	8.	-2.	0.	0.	0.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
10	87		23.	-118.	72.	400.	2666.	6897.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167		7.	38.	257.	-0.	-0.	0.	.0001	.0003	.0021	-.0000	.0000	-.0000
20	175		1.	5.	57.	0.	0.	-0.	.0000	.0002	.0019	.0000	-.0000	.0000
21	190		-13.	-7.	-9.	-0.	0.	-0.	-.0006	<u>-.0003</u>	-.0004	.0000	-.0000	.0000
22	205		-14.	-4.	-4.	0.	0.	-0.	-.0009	-.0002	-.0002	.0000	.0000	.0000
23	220		-29.	-1.	-10.	0.	0.	-0.	-.0009	-.0000	-.0003	.0000	-.0000	.0000
24	240		-40.	-3.	-14.	-0.	-0.	0.	-.0010	-.0001	-.0003	-.0000	.0000	.0000
25	255		19.	2.	-65.	0.	-0.	0.	.0000	.0000	-.0003	-.0000	.0000	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
MODE 9 FREQUENCY 15.93

NET PT SEG	FX	FY	FZ	NETWORK POINT REACTIONS AND DEFLECTIONS			DX	DY	DZ	RX	RY	RZ
	(LB)	(LB)	(LB)	MX	MY	MZ	(IN)	(IN)	(IN)	(RAD)	(RAD)	(RAD)
				(IN-LB)	(IN-LB)	(IN-LB)						

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

LOADS
SHOCK

LOADS
SHOCK

SC	HE	SEQ	POS	CODE	10 FREQ	FZ	18.09	MY	NZ	DX	DY	DZ	RX	RY	RZ
					FX	FY	HX								
					(LB)	(LB)	(IN-LB)	(IN-LB)	(IN-LB)	(IN)	(IN)	(IN)	(RAD)	(RAD)	(RAD)
1	1	5	BEG		88.	-678.	13.	20566.	6087.	1755.	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END		-88.	678.	-13.	-20168.	-6037.	-1840.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000
1	2	15	END		-88.	678.	-13.	9071.	-2302.	-4235.	-0.0003	0.0003	-0.0000	-0.0000	-0.0000
2	1	15	BEG		66.	-656.	38.	-9071.	2302.	4235.	-0.0003	0.0003	-0.0000	-0.0000	-0.0000
2	1	20	END		-66.	656.	-38.	8283.	-2302.	-2839.	-0.0005	0.0003	-0.0000	-0.0000	-0.0000
3	1	20	BEG		-47.	-122.	-16.	-5757.	-1441.	-22774.	-0.0005	0.0003	-0.0000	-0.0000	-0.0000
3	1	25	END		47.	122.	16.	6340.	1441.	21118.	-0.0006	0.0003	-0.0000	-0.0000	-0.0000
3	2	30	END		47.	122.	16.	6923.	1441.	19463.	-0.0007	0.0003	0.0000	-0.0000	-0.0000
4	1	30	BEG		-119.	-87.	29.	-6923.	-1441.	-19463.	-0.0007	0.0003	0.0000	-0.0000	-0.0000
4	1	35	END		119.	87.	-29.	5891.	1441.	15236.	-0.0006	0.0003	0.0000	-0.0000	0.0000
4	2	40	END		119.	87.	-29.	4859.	1441.	11009.	-0.0005	0.0003	0.0000	-0.0000	0.0000
5	1	40	BEG		-170.	-51.	63.	-4859.	-1441.	-11009.	-0.0005	0.0003	0.0000	-0.0000	0.0000
5	1	45	END		170.	51.	-63.	2634.	1441.	4975.	-0.0003	0.0003	0.0000	-0.0000	0.0000
5	2	50	END		170.	51.	-63.	409.	1441.	-1059.	-0.0000	0.0003	0.0001	-0.0000	0.0000
6	1	50	BEG		-175.	0.	78.	-409.	-1441.	1059.	-0.0000	0.0003	0.0001	-0.0000	0.0000
6	1	55	END		175.	-0.	-78.	-4285.	1441.	-11549.	0.0003	0.0003	-0.0001	0.0000	0.0000
6	2	57	END		175.	-0.	-78.	-9369.	1441.	-22013.	0.0006	0.0003	-0.0003	0.0000	0.0000
7	1	57	BEG		140.	186.	-58.	9369.	-1441.	22013.	0.0006	0.0003	-0.0003	0.0000	0.0000
7	1	60	END		-140.	-186.	58.	-7080.	1441.	-17351.	0.0006	0.0003	-0.0003	0.0000	-0.0000
7	2	65	END		-140.	-186.	58.	-4790.	1441.	-11790.	0.0005	0.0003	-0.0003	-0.0000	-0.0000
7	3	70	END		-140.	-186.	58.	-2846.	1441.	-7067.	0.0003	0.0003	-0.0002	-0.0000	-0.0000
8	1	70	BEG		184.	232.	-90.	2846.	-1441.	7067.	0.0003	0.0003	-0.0002	-0.0000	-0.0000
8	1	75	END		-184.	-232.	90.	-2792.	1441.	-6956.	0.0003	0.0003	-0.0002	-0.0000	-0.0000
8	2	80	END		-164.	-232.	90.	2423.	4581.	11715.	-0.0000	0.0006	-0.0000	-0.0000	-0.0000

SC	HE	SEQ	POS	FX	FY	FZ	HX	MY	NZ	DX	DY	DZ	RX	RY	RZ
				(LB)	(LB)	(LB)	(IN-LB)	(IN-LB)	(IN-LB)	(IN)	(IN)	(IN)	(RAD)	(RAD)	(RAD)

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ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-184.	-232.	90.	2438.	4623.	11853.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000
9	1	85	BEG	178.	245.	-98.	-2438.	-4623.	-11853.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000
9	1	86	END	-178.	-245.	98.	3190.	6743.	18496.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000
9	2	87	END	-178.	-245.	98.	-1919.	6743.	9262.	0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	72.	-503.	89.	-2526.	3743.	25613.	-.0005	.0003	.0004	-.0000	-.0000	-.0000
18	1	160	END	-72.	503.	-89.	2526.	-980.	-10080.	-.0005	.0012	.0001	.0000	-.0000	-.0000
18	2	165	END	-72.	503.	-89.	2526.	1763.	5453.	-.0005	.0025	-.0003	.0000	-.0000	-.0000
18	3	167	END	-72.	503.	-89.	2526.	5399.	25781.	-.0005	.0040	-.0007	.0000	-.0000	-.0000
19	1	167	BEG	0.	113.	-24.	-2526.	-5399.	-25781.	-.0005	.0040	-.0007	.0000	-.0000	-.0000
19	1	170	END	-0.	-113.	24.	2526.	4446.	21246.	-.0005	.0040	-.0008	.0000	.0000	.0000
19	2	175	END	-0.	-113.	24.	2526.	3494.	16711.	-.0005	.0023	-.0006	.0000	.0000	.0001
20	1	175	BEG	-17.	201.	-46.	-2526.	-3494.	-16711.	-.0005	.0023	-.0006	.0000	.0000	.0001
20	1	180	END	17.	-201.	46.	2526.	1655.	8643.	-.0005	-.0002	-.0000	.0000	.0000	.0001
20	2	185	END	17.	-201.	46.	2526.	780.	4801.	-.0005	-.0026	-.0003	.0000	.0000	.0001
20	3	190	END	17.	-201.	46.	-1756.	-548.	603.	-.0002	-.0057	.0007	.0000	.0000	.0001
21	1	190	BEG	-24.	42.	-25.	1756.	548.	-603.	-.0002	-.0057	.0007	.0000	.0000	.0001
21	1	195	END	24.	-42.	25.	-1772.	-556.	603.	-.0002	-.0057	.0007	.0000	.0000	.0001
21	2	200	END	24.	-42.	25.	-1787.	-564.	604.	-.0002	-.0057	.0006	.0000	.0000	.0001
21	3	205	END	24.	-42.	25.	-2712.	-540.	1529.	-.0001	-.0041	.0005	.0000	.0000	.0001
22	1	205	BEG	-25.	-36.	-15.	2712.	540.	-1529.	-.0001	-.0041	.0005	.0000	.0000	.0001
22	1	210	END	25.	36.	15.	-2712.	-381.	1147.	-.0001	-.0028	.0004	.0000	.0000	.0001
22	2	215	END	25.	36.	15.	-2712.	-223.	764.	-.0001	-.0015	.0003	.0000	.0000	.0001
22	3	220	END	25.	36.	15.	-1947.	-441.	-0.	.0001	.0007	.0000	.0000	.0000	.0001
23	1	220	BEG	-20.	-6.	-13.	1947.	441.	-0.	.0001	.0007	.0000	.0000	.0000	.0001
23	1	225	END	20.	6.	13.	-1845.	-760.	0.	.0003	.0006	.0000	.0000	.0000	.0001
23	2	230	END	20.	6.	13.	-1612.	-1489.	0.	.0006	.0002	.0000	.0000	.0000	.0001

ADLPIPE PAGE 80

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	HE	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
----	----	-----	-----	------------------------	------------------------	------------------------	---------------------------	---------------------------	---------------------------	------------------------	------------------------	------------------------	-------------------------	-------------------------	-------------------------

ADLPIPE PAGE 80

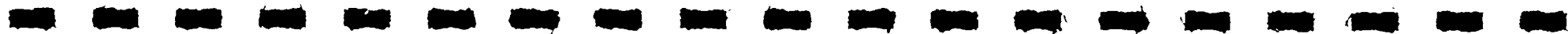
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDEL 1 XYZ SHOCK

SC	ME	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
23	3	235	END	20.	6.	13.	-1379.	-2218.	0.	.0008	.0006	.0000	.0000	.0000	.0001
23	4	240	END	20.	6.	13.	-1145.	-2947.	0.	.0009	-.0001	.0000	.0000	-.0000	.0001
24	1	240	BEG	26.	-10.	-11.	1145.	2947.	0.	.0009	-.0001	.0000	.0000	-.0000	.0001
24	1	245	END	-26.	10.	11.	-763.	-1985.	0.	.0007	-.0001	.0000	-.0000	-.0000	.0001
24	2	250	END	-26.	10.	11.	-382.	-982.	0.	.0004	-.0001	.0000	-.0000	-.0000	.0001
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	0.0000	.0000	-.0000	-.0000	.0001
24	3	255	END	-26.	10.	11.	-0.	0.	0.	0.0000	0.0000	.0000	-.0000	-.0000	.0001

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCDEL 1 XYZ SHOCK
PCDE 10 FREQUENCY 18.09

			NETWORK POINT REACTIONS AND DEFLECTIONS											
NET	PT	SEQ	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5		88.	-678.	13.	20566.	6007.	1755.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		-21.	22.	24.	0.	0.	0.	-.0003	.0003	.0000	.0000	-.0000	-.0000
3	20		-41.	30.	36.	0.	0.	0.	-.0005	.0003	.0000	-.0000	-.0000	-.0000
4	30		-72.	36.	45.	-0.	0.	0.	-.0007	.0003	.0000	.0000	-.0000	-.0000
5	40		-51.	36.	34.	-0.	-0.	-0.	-.0005	.0003	.0003	.0000	-.0000	.0000
6	50		-5.	55.	16.	-0.	0.	-0.	-.0000	.0003	.0001	.0000	-.0000	.0000
7	57		315.	183.	-136.	-0.	-0.	-0.	.0006	.0003	-.0003	.0000	-.0000	.0000
8	70		44.	46.	-33.	0.	0.	0.	.0003	.0003	-.0002	-.0000	-.0000	-.0000
9	85		-7.	13.	-8.	0.	0.	0.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
10	87		-178.	-245.	98.	-1919.	6743.	9262.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167		-72.	616.	-113.	0.	0.	0.	-.0005	.0040	-.0007	.0000	-.0000	-.0000
20	175		-18.	88.	-22.	0.	-0.	-0.	-.0005	.0023	-.0006	.0000	.0000	.0001
21	190		-7.	-159.	21.	-0.	-0.	-0.	-.0002	<u>-.0057</u>	.0007	.0000	.0000	.0001
22	205		-1.	-79.	10.	0.	-0.	-0.	-.0001	-.0041	.0005	.0000	.0000	.0001
23	220		6.	30.	2.	0.	-0.	-0.	.0001	.0007	.0000	.0000	.0000	.0001
24	240		46.	-4.	2.	-0.	-0.	0.	.0009	-.0001	.0000	.0000	-.0000	.0001
25	255		-26.	10.	11.	-0.	0.	0.	0.0000	0.0000	.0000	-.0000	-.0000	.0001



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
MCDE 10 FREQUENCY 18.09

NET PT SEQ	NETWORK JOINT REACTIONS AND DEFLECTIONS			DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
	F _X (LB)	F _Y (LB)	F _Z (LB)				

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 11, FREQUENCY 21.27

ADLPIPE PAGE 83

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

DYNAMIC PIPE STRESS ANALYSIS, MODE 11, FREQUENCY 21.27

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

DYNAMIC PIPE STRESS ANALYSIS, MODE 12, FREQUENCY 23.56



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

DYNAMIC PIPE STRESS ANALYSIS, MODE 12, FREQUENCY 23.56

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 85

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

DYNAMIC PIPE STRESS ANALYSIS, MODE 13, FREQUENCY 27.61

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 13, FREQUENCY 27.61

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

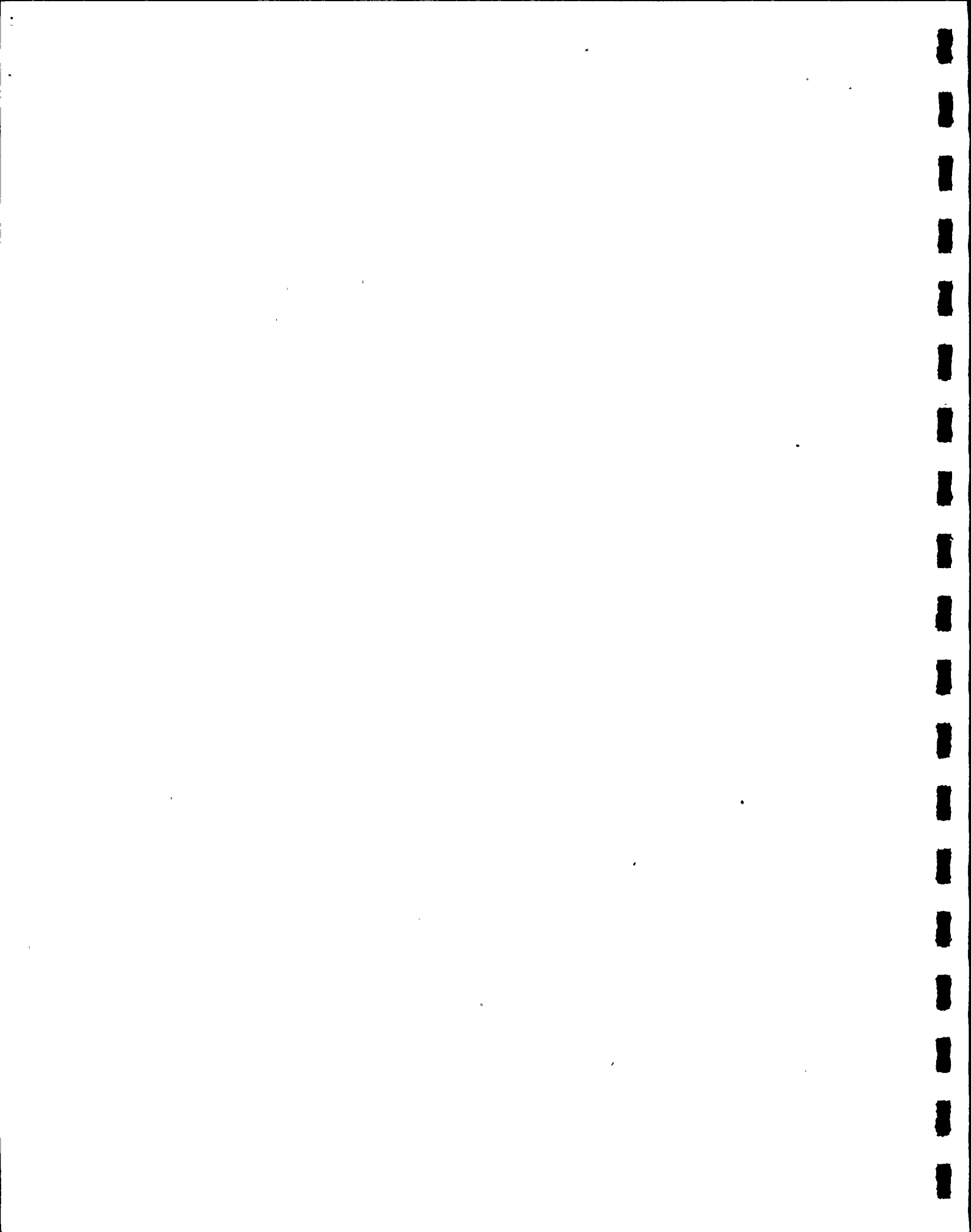
ADLPIPE PAGE 86

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 86

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCKLOADS
SHOCK

SC	ME	SEQ	POS	MODE 14 FREQUENCY			28.66			OX	OY	DZ	RX	RY	RZ
				FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)						
1	1	5	BEG	-22.	-75.	12.	1812.	-1034.	-897.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	22.	75.	-12.	-1768.	1020.	887.	.0000	.0000	-.0000	-.0000	.0000	.0000
1	2	15	END	22.	75.	-12.	1016.	-56.	-1004.	.0000	.0000	.0000	.0000	.0000	-.0000
2	1	15	BEG	-17.	-70.	13.	-1016.	56.	1004.	.0000	.0000	-.0000	.0000	.0000	-.0000
2	1	20	END	17.	70.	-13.	734.	-56.	-1354.	.0000	.0000	.0000	.0000	.0000	-.0000
3	1	20	BEG	7.	-38.	17.	-600.	-27.	299.	.0000	.0000	.0000	.0000	.0000	-.0000



3 1 25 END -7. 38. -17. 27. -60. ,0000 ,0000 -0.0000 ,0000 -0.0000

3	1	25	END	-7.	38.	-17.	-14.	27.	-60.	.0000	.0000	-.0000	.0000	.0000	-.0000
3	2	30	END	-7.	38.	-17.	-628.	27.	179.	.0000	.0000	-.0000	.0000	.0000	-.0000
4	1	30	BEG	7.	-30.	10.	628.	-27.	-179.	.0000	.0000	-.0000	.0000	.0000	-.0000
4	1	35	END	-7.	30.	-10.	-968.	27.	434.	-.0000	.0000	-.0000	.0000	.0000	-.0000
4	2	40	END	-7.	30.	-10.	-1308.	27.	668.	-.0000	.0000	-.0000	.0000	.0000	-.0000
5	1	40	BEG	2.	-22.	-3.	1308.	-27.	-668.	-.0000	.0000	-.0000	.0000	.0000	-.0000
5	1	45	END	-2.	22.	3.	-1198.	27.	764.	-.0000	.0000	-.0000	-.0000	.0000	-.0000
5	2	50	END	-2.	22.	3.	-1088.	27.	840.	-.0000	.0000	-.0000	-.0000	.0000	.0000
6	1	50	BEG	-8.	-9.	-18.	1088.	-27.	-840.	-.0000	.0000	-.0000	-.0000	.0000	.0000
6	1	55	END	8.	9.	18.	10.	27.	381.	-.0000	.0000	-.0000	-.0000	.0000	.0000
6	2	57	END	8.	9.	18.	1200.	27.	-116.	.0000	.0000	.0000	-.0000	.0000	.0000
7	1	57	BEG	-6.	33.	7.	-1200.	-27.	116.	.0000	.0000	.0000	-.0000	.0000	.0000
7	1	60	END	6.	-33.	-7.	924.	27.	-358.	.0000	.0000	.0000	-.0000	.0000	.0000
7	2	65	END	6.	-33.	-7.	648.	27.	-600.	.0000	.0000	.0000	-.0000	.0000	.0000
7	3	70	END	6.	-33.	-7.	414.	27.	-805.	.0000	.0000	.0000	.0000	.0000	.0000
8	1	70	BEG	1.	43.	18.	-414.	-27.	805.	.0000	.0000	.0000	.0000	.0000	.0000
8	1	75	END	-1.	-43.	-18.	403.	27.	-605.	.0000	.0000	.0000	.0000	.0000	.0000
8	2	80	END	-1.	-43.	-18.	-211.	-799.	1157.	-.0000	.0000	.0000	-.0000	.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

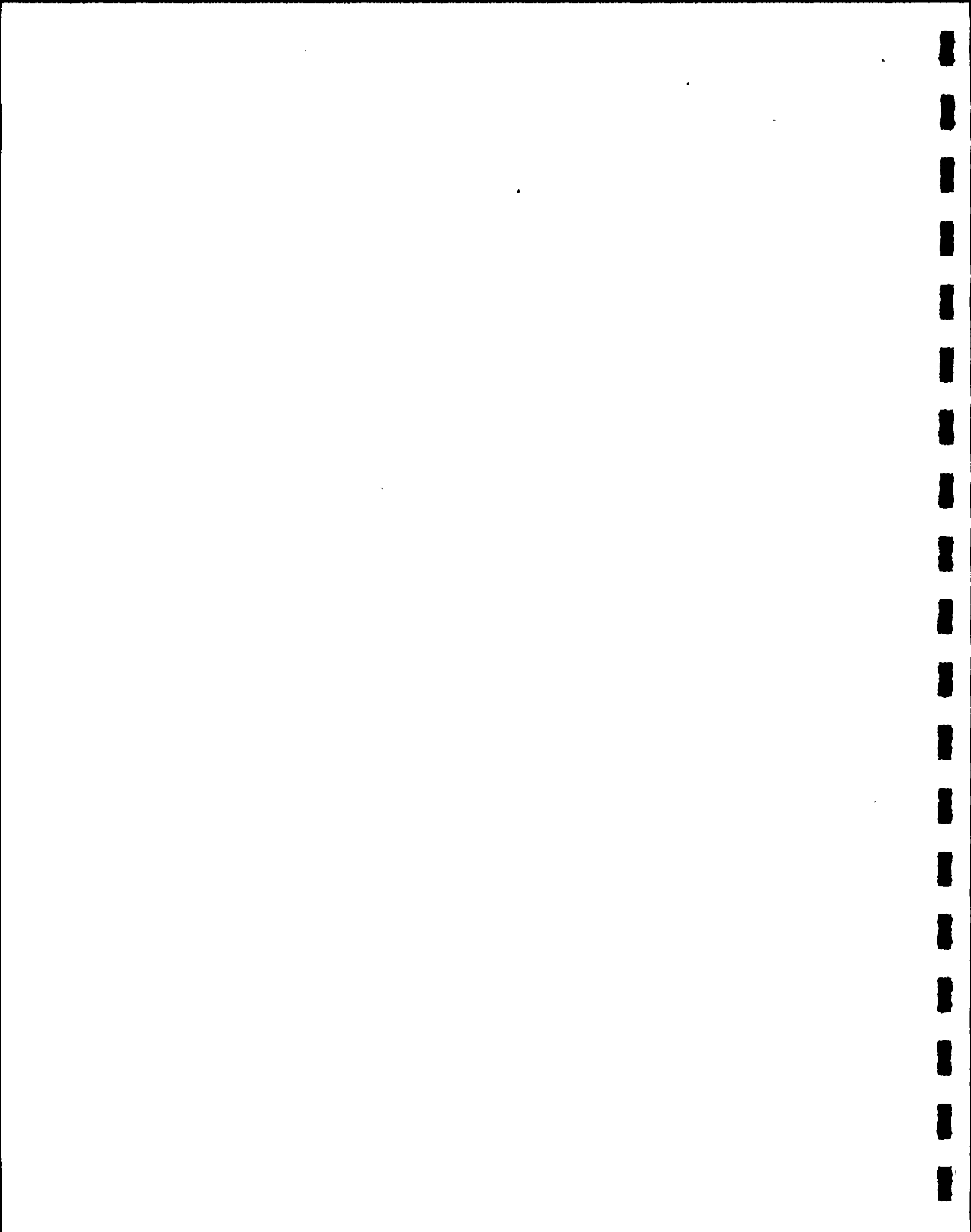
ADLPIPE STRESS ANALYSIS

SC	WE	SEO	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-1.	-43.	-16.	-209.	-810.	1183.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	85	BEG	-3.	49.	24.	209.	810.	-1183.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	86	END	3.	-49.	-24.	-58.	-1445.	2514.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	2	87	END	3.	-49.	-24.	1178.	-1445.	2673.	.0000	.0000	.0000	.0000	.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 88

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-17.	-26.	-3.	-135.	83.	1055.	.0000	.0000	.0000	.0000	.0000	-.0000
18	1	160	END	17.	26.	3.	135.	-161.	-254.	.0000	.0001	.0000	.0000	.0000	-.0000
18	2	165	END	17.	26.	3.	135.	-280.	548.	.0000	.0001	.0000	.0000	-.0000	-.0000
18	3	167	END	17.	26.	3.	135.	-408.	1597.	.0000	.0001	.0000	.0000	-.0000	-.0000
19	1	167	BEG	-6.	31.	4.	-135.	408.	-1597.	.0000	.0001	-.0000	.0000	-.0000	-.0000
19	1	170	END	6.	-31.	-4.	135.	-254.	358.	.0000	.0001	-.0000	.0000	-.0000	.0000
19	2	175	END	6.	-31.	-4.	135.	-69.	-880.	.0000	.0000	-.0001	.0000	-.0000	.0000
20	1	175	BEG	-4.	30.	-2.	-135.	99.	880.	.0000	.0000	-.0001	.0000	-.0000	.0000
20	1	180	END	4.	-30.	2.	135.	-169.	-2226.	.0000	.0000	-.0001	.0000	-.0000	-.0000
20	2	185	END	4.	-34.	2.	135.	-203.	-2867.	.0000	.0001	-.0002	.0000	-.0000	-.0000
20	3	190	END	4.	-34.	2.	-571.	-318.	-3566.	-.0000	.0004	-.0002	-.0000	-.0000	-.0000
21	1	190	BEG	-4.	60.	-18.	571.	318.	3566.	-.0000	.0004	-.0002	-.0000	-.0000	-.0000
21	1	195	END	4.	-60.	16.	-592.	-319.	-3566.	-.0000	.0004	-.0002	-.0000	-.0000	-.0000
21	2	200	END	4.	-60.	16.	-614.	-321.	-3566.	-.0000	.0004	-.0002	-.0000	-.0000	-.0000
21	3	205	END	4.	-60.	16.	-1898.	-69.	-2296.	-.0000	-.0001	-.0001	-.0000	-.0000	-.0000
22	1	205	BEG	-6.	55.	-22.	1898.	69.	2296.	-.0000	-.0001	-.0001	-.0000	-.0000	-.0000
22	1	210	END	6.	-55.	22.	-1898.	163.	-1722.	-.0000	-.0005	-.0001	-.0000	-.0000	-.0000
22	2	215	END	6.	-55.	22.	-1898.	394.	-1148.	-.0000	-.0009	-.0000	-.0000	-.0000	-.0000
22	3	220	END	6.	-55.	22.	-3046.	731.	0.	-.0001	-.0013	.0000	-.0000	.0000	-.0000
23	1	220	BEG	-13.	82.	-20.	3046.	-731.	0.	-.0001	-.0013	.0000	-.0000	.0000	-.0000
23	1	225	END	13.	82.	20.	-1708.	524.	-0.	-.0000	-.0010	.0000	-.0000	.0000	-.0000
23	2	230	END	13.	82.	20.	1349.	50.	-0.	.0000	-.0001	.0000	-.0000	.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 89

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

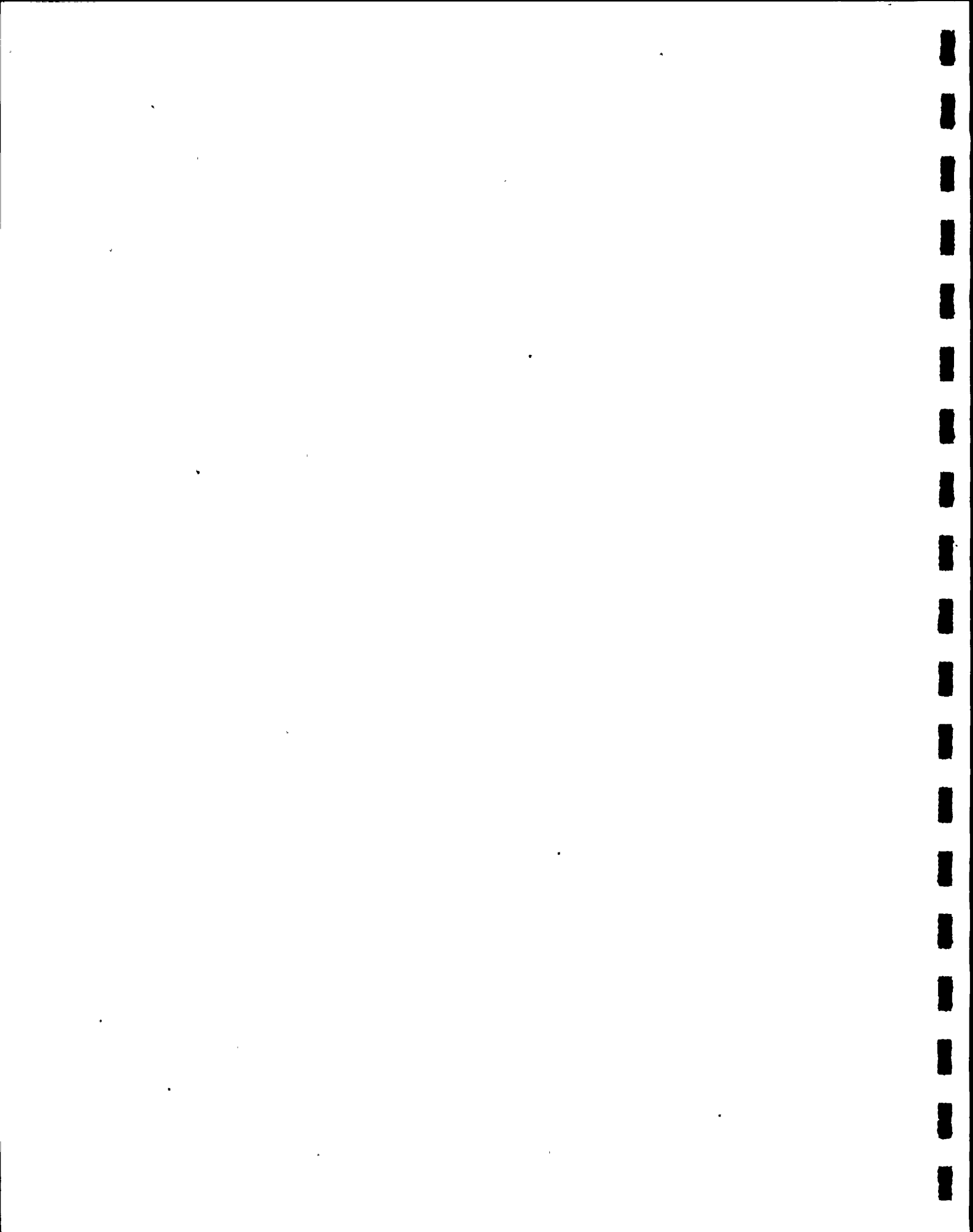
ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	13.	82.	20.	4407.	-424.	-0.	.0001	.0007	.0000	-.0000	.0000	-.0000
23	4	240	END	13.	82.	20.	7464.	-898.	-0.	.0002	.0011	.0000	-.0000	.0000	-.0000
24	1	240	BEG	8.	67.	-17.	-7464.	898.	0.	.0002	.0011	.0000	-.0000	.0000	-.0000
24	1	245	END	-8.	-67.	17.	4976.	-599.	0.	.0001	.0010	.0000	.0000	-.0000	-.0000
24	2	250	END	-8.	-67.	17.	2488.	-299.	0.	.0001	.0006	.0000	.0000	-.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0000	-.0000
24	3	255	END	-8.	-67.	17.	-0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MODE 14 FREQUENCY 28.68

NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	-22.	-75.	12.	1812.	-1034.	-697.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	5.	5.	2.	-0.	-0.	-0.	.0000	.0000	.0000	.0000	.0000	-.0000
3	20	6.	7.	1.	-0.	-0.	0.	.0000	.0000	.0000	.0000	.0000	-.0000
4	30	0.	8.	-8.	-0.	-0.	0.	.0000	.0000	-.0000	.0000	.0000	-.0000
5	40	-5.	8.	-13.	-0.	0.	0.	-.0000	.0000	-.0000	.0000	.0000	-.0000
6	50	-10.	12.	-15.	0.	-0.	-0.	-.0000	.0000	-.0000	.0000	.0000	.0000
7	57	2.	42.	25.	0.	0.	-0.	.0000	.0000	.0000	-.0000	.0000	.0000
8	70	7.	10.	11.	0.	-0.	-0.	.0000	.0000	.0000	.0000	.0000	.0000
9	85	-4.	6.	5.	-0.	-0.	0.	-.0000	.0000	.0000	-.0000	.0000	-.0000
10	87	3.	-49.	-24.	1170.	-1445.	2673.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	11.	57.	7.	0.	0.	0.	.0000	.0001	.0000	.0000	-.0000	-.0000
20	175	3.	3.	-6.	-0.	0.	-0.	.0000	.0000	-.0001	.0000	-.0000	.0000
21	190	-0.	27.	-14.	0.	-0.	-0.	-.0000	.0004	-.0002	-.0000	-.0000	-.0000
22	205	-2.	-5.	-6.	-0.	0.	0.	-.0000	-.0001	-.0001	-.0000	-.0000	-.0000
23	220	-7.	-137.	2.	0.	0.	0.	-.0001	-.0013	.0000	-.0000	.0000	-.0000
24	240	21.	148.	3.	0.	-0.	-0.	.0002	.0011	.0000	-.0000	.0000	-.0000
25	255	-8.	-67.	17.	-0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0000	-.0000

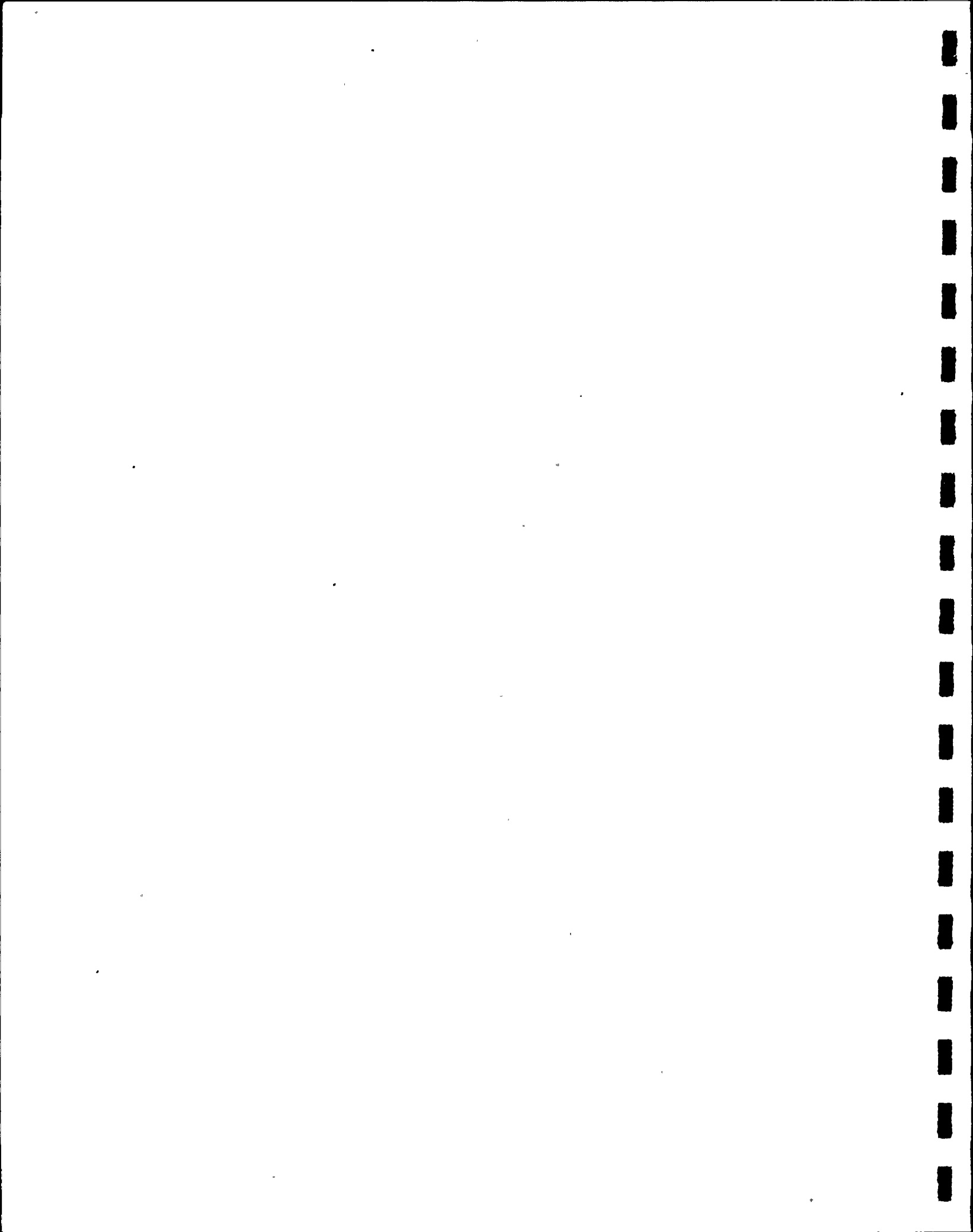
ADLPIPE PAGE 91

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCCEL 1 XYZ SHOCK
MCCE 14 FREQUENCY 28.68

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MCCEL 1 XYZ SHOCK



ADLPIPE PAGE 92

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 15, FREQUENCY 31.57

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 93

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE PAGE 93

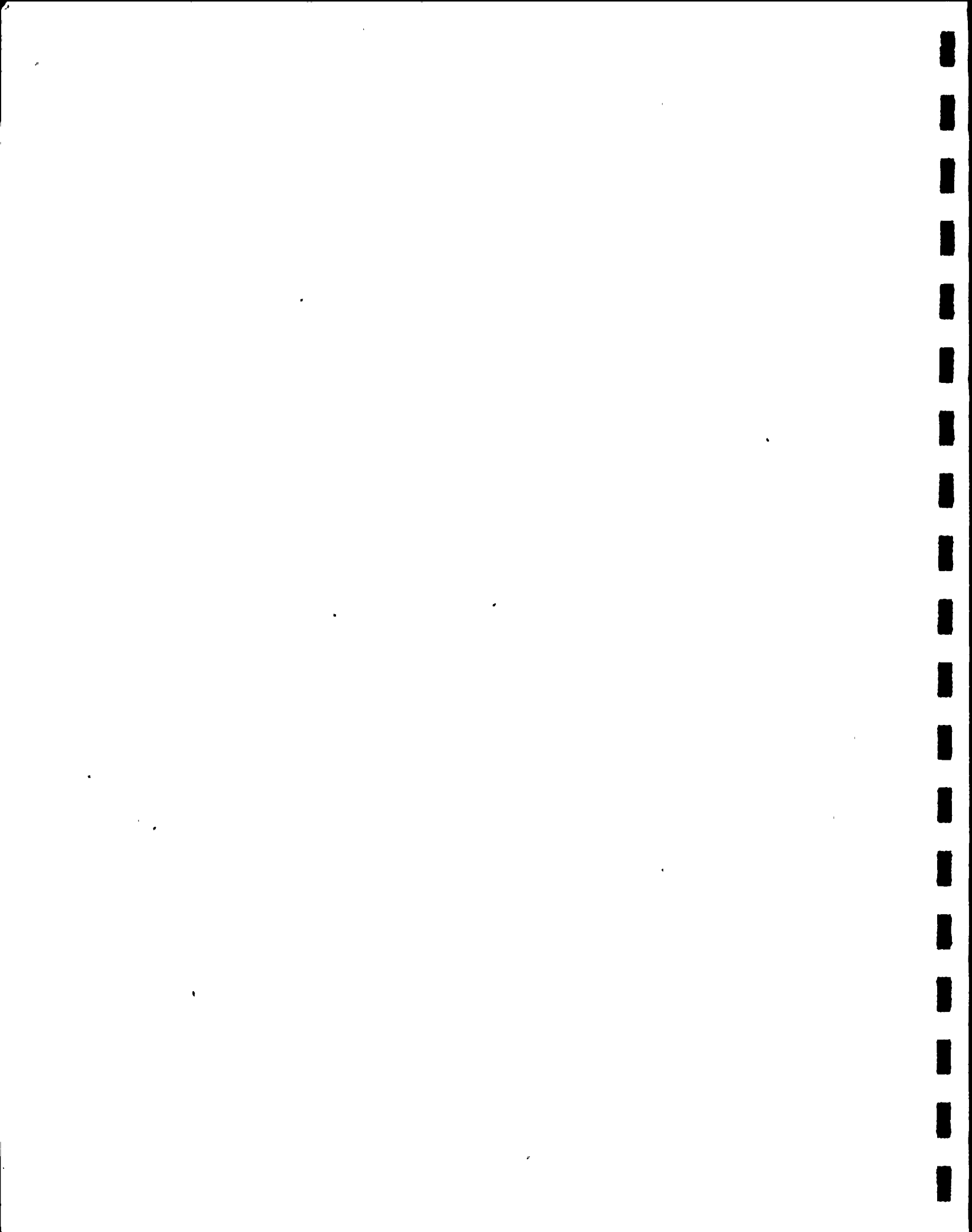
ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE NPS MODEL 1 XYZ SHOCK

DYNAMIC PIPE STRESS ANALYSIS, MODE 16, FREQUENCY 32.32

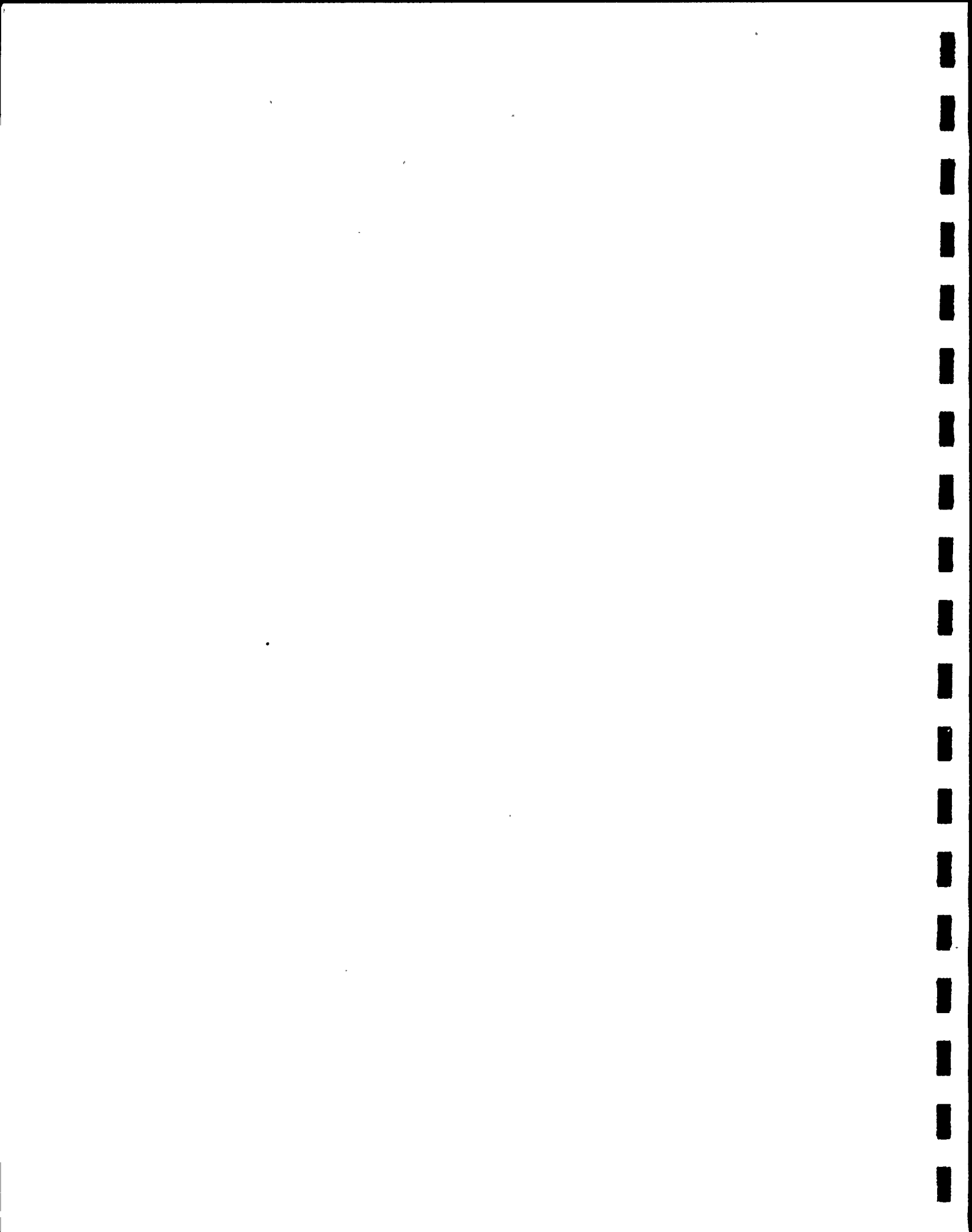
DISPLACEMENTS LESS THAN .001 INCH OR .025 MM



ADLPIPE PAGE 94

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 17, FREQUENCY 38.57

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM



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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE NPS MODEL 1 XYZ SHOCK

DYNAMIC PIPE STRESS ANALYSIS, MODE 18, FREQUENCY 41.84

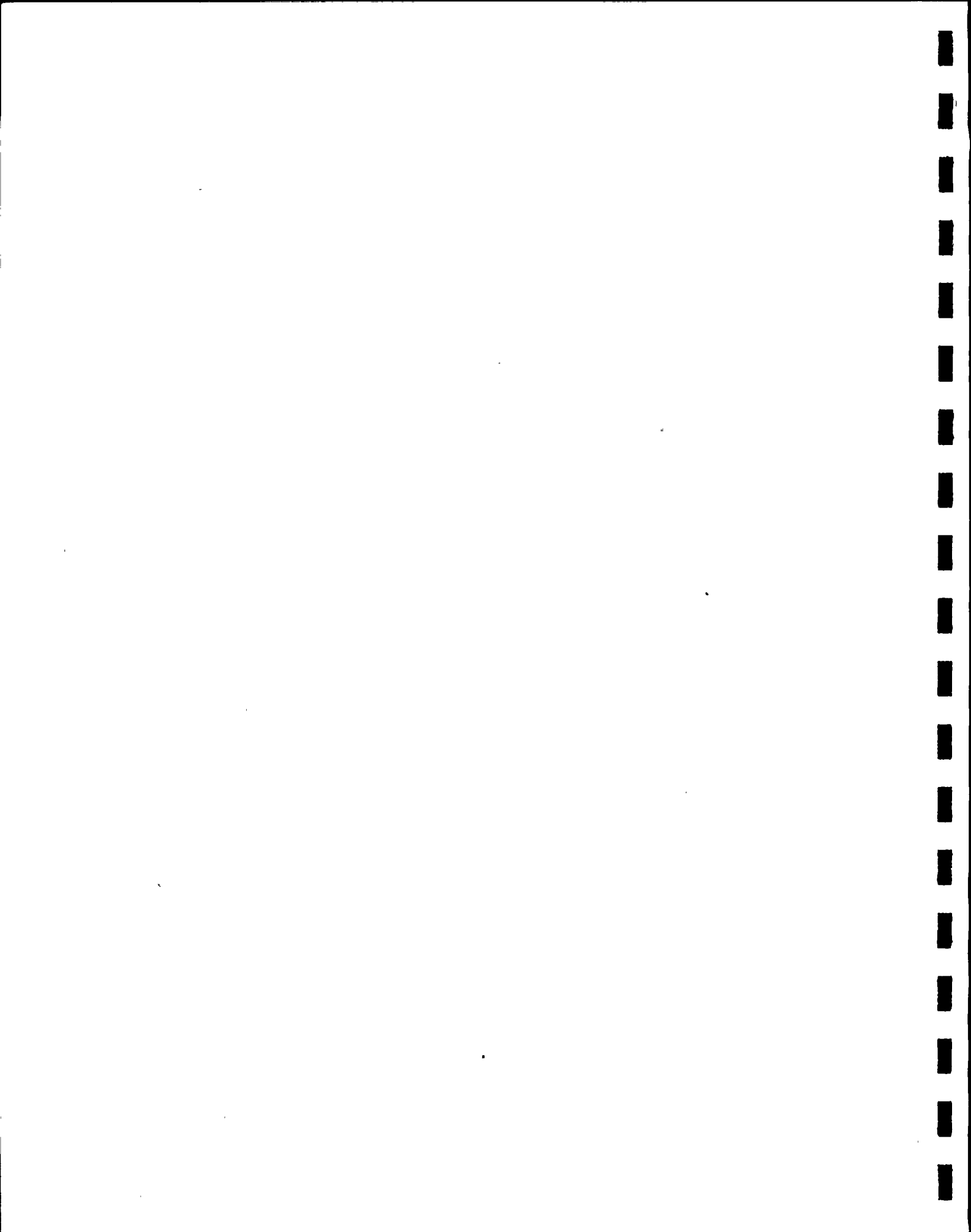
DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE NPS MODEL 1 XYZ SHOCK



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 19, FREQUENCY 27.39

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM



ADLPIPE PAGE 97

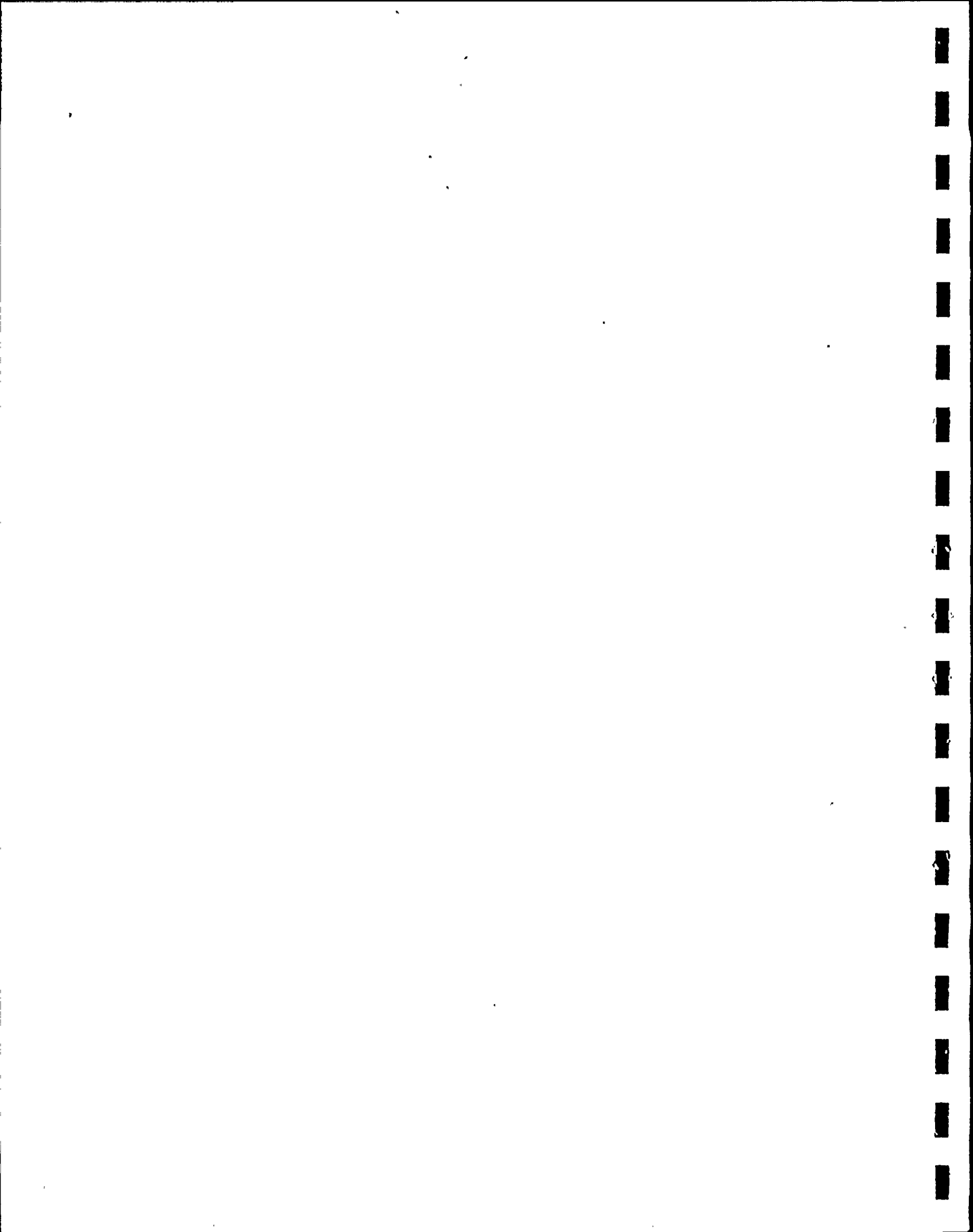
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

LOADS
SHOCK

SC	HE	SEQ	POS	MODE FX (LB)	20 FY (LB)	FREQUENCY FZ (LB)	48.93 MX (IN-LB)	MY (IN-LB)	KZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	12.	12.	-13.	-44.	341.	406.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-12.	-12.	13.	37.	-332.	-405.	-0.0000	-0.0000	.0000	.0000	-0.0000	-0.0000
1	2	15	END	-12.	-12.	13.	133.	318.	239.	-0.0000	-0.0000	.0000	-0.0000	-0.0000	-0.0000
2	1	15	BEG	6.	12.	-11.	-133.	-318.	-239.	-0.0000	-0.0000	.0000	-0.0000	-0.0000	-0.0000
2	1	20	END	-6.	-12.	11.	363.	318.	373.	-0.0000	-0.0000	.0000	-0.0000	-0.0000	.0000
3	1	20	BEG	-3.	12.	0.	-359.	-79.	-399.	-0.0000	-0.0000	.0000	-0.0000	-0.0000	.0000
3	1	25	END	3.	-12.	-0.	346.	79.	307.	-0.0000	-0.0000	.0000	.0000	-0.0000	.0000
3	2	30	END	3.	-12.	-0.	333.	79.	215.	-0.0000	-0.0000	.0000	.0000	-0.0000	.0000
4	1	30	BEG	-7.	11.	5.	-333.	-79.	-215.	-0.0000	-0.0000	.0000	.0000	-0.0000	.0000
4	1	35	END	7.	-11.	-5.	138.	79.	-29.	-0.0000	-0.0000	.0000	.0000	-0.0000	.0000
4	2	40	END	7.	-11.	-5.	-57.	79.	-273.	.0000	-0.0000	-0.0000	.0000	.0000	.0000
5	1	40	BEG	-3.	11.	5.	57.	-79.	273.	.0000	-0.0000	-0.0000	.0000	.0000	.0000
5	1	45	END	3.	-11.	-5.	-235.	79.	-391.	.0000	-0.0000	-0.0000	.0000	.0000	.0000
5	2	50	END	3.	-11.	-5.	-413.	79.	-509.	.0000	-0.0000	-0.0000	.0000	.0000	-0.0000
6	1	50	BEG	7.	9.	-3.	413.	-79.	509.	.0000	-0.0000	-0.0000	.0000	.0000	-0.0000
6	1	55	END	-7.	-9.	3.	-248.	79.	-87.	.0000	-0.0000	-0.0000	-0.0000	.0000	-0.0000
6	2	57	END	-7.	-9.	3.	-69.	79.	370.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
7	1	57	BEG	-2.	3.	-2.	69.	-79.	-370.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
7	1	60	END	2.	-3.	2.	27.	79.	275.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
7	2	65	END	2.	-3.	2.	124.	79.	180.	-0.0000	-0.0000	.0000	-0.0000	.0000	.0000
7	3	70	END	2.	-3.	2.	206.	79.	99.	-0.0000	-0.0000	.0000	-0.0000	.0000	.0000
8	1	70	BEG	-5.	1.	7.	-206.	-79.	-99.	-0.0000	-0.0000	.0000	-0.0000	.0000	.0000
8	1	75	END	5.	-1.	-7.	201.	79.	96.	-0.0000	-0.0000	.0000	-0.0000	.0000	.0000
8	2	80	END	5.	-1.	-7.	-110.	-213.	-63.	-0.0000	.0000	.0000	-0.0000	.0000	-0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK



ADLPIPE PAGE 98

ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	FX (IN-LB)	FY (IN-LB)	FZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	5.	-1.	-7.	-110.	-217.	-62.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	85	BEG	-6.	2.	14.	110.	217.	62.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	86	END	6.	-2.	-14.	-103.	-579.	-1.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	2	87	END	6.	-2.	-14.	624.	-579.	293.	0.0000	.0000	.0000	.0000	.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE NPS MODEL 1 XYZ SHOCK

ADLPIPE STRESS ANALYSIS

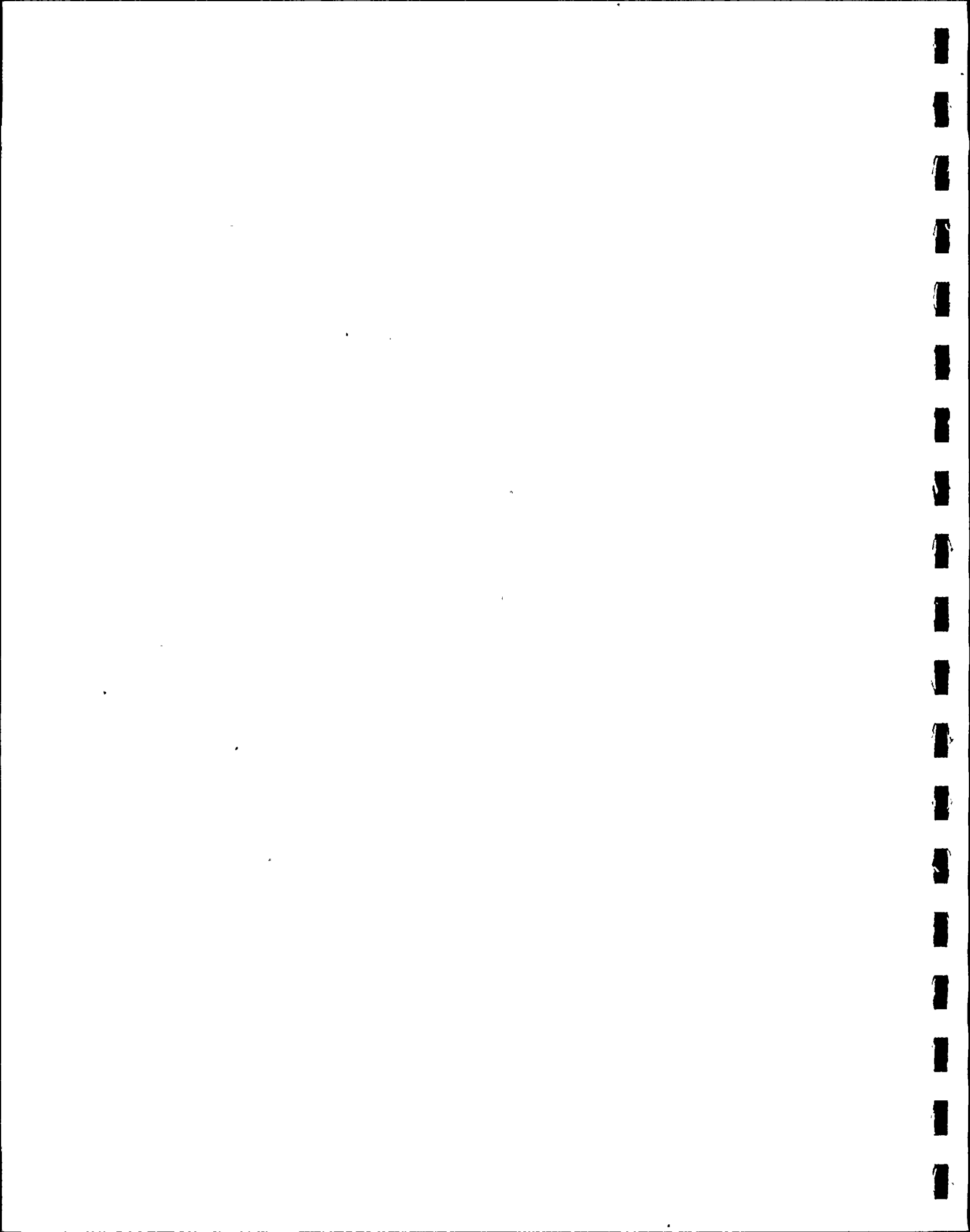
ADLPIPE PAGE 99

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	2.	-1.	-7.	-4.	-239.	26.	-0.0000	-0.0000	.0000	-0.0000	-0.0000	.0000
18	1	160	END	-2.	1.	7.	4.	31.	-11.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
18	2	165	END	-2.	1.	7.	4.	-176.	5.	-0.0000	.0000	.0000	-0.0000	.0000	-0.0000
18	3	167	END	-2.	1.	7.	4.	-447.	25.	-0.0000	.0000	.0000	-0.0000	-0.0000	-0.0000
19	1	167	BEG	-11.	0.	9.	-4.	447.	-25.	-0.0000	.0000	.0000	-0.0000	-0.0000	-0.0000
19	1	170	END	11.	-0.	-9.	4.	-70.	7.	-0.0000	.0000	-0.0000	-0.0000	-0.0000	.0000
19	2	175	END	11.	-0.	-9.	4.	308.	-10.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	.0000
20	1	175	BEG	-14.	0.	-1.	-4.	-308.	10.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	.0000
20	1	180	END	14.	-0.	1.	4.	254.	-13.	-0.0000	-0.0000	-0.0000	.0000	.0000	.0000
20	2	185	END	14.	-0.	1.	4.	228.	-14.	-0.0000	-0.0000	-0.0000	.0000	.0000	-0.0000
20	3	190	END	14.	-0.	1.	1.	-99.	5.	.0000	-0.0000	-0.0000	.0000	.0000	-0.0000
21	1	190	BEG	-11.	-0.	-6.	-1.	99.	-5.	.0000	-0.0000	-0.0000	.0000	.0000	-0.0000
21	1	195	END	11.	0.	6.	1.	-103.	5.	.0000	-0.0000	-0.0000	.0000	.0000	-0.0000
21	2	200	END	11.	0.	6.	1.	-106.	6.	.0000	-0.0000	-0.0000	.0000	.0000	-0.0000
21	3	205	END	11.	0.	6.	-4.	-219.	18.	.0000	-0.0000	-0.0000	.0000	-0.0000	.0000
22	1	205	BEG	-7.	-0.	-9.	4.	219.	-18.	.0000	-0.0000	-0.0000	.0000	-0.0000	.0000
22	1	210	END	7.	0.	9.	-4.	-123.	14.	.0000	-0.0000	-0.0000	.0000	-0.0000	.0000
22	2	215	END	7.	0.	9.	-4.	-27.	9.	.0000	-0.0000	-0.0000	.0000	-0.0000	.0000
22	3	220	END	7.	0.	9.	5.	27.	0.	.0000	.0000	.0000	.0000	-0.0000	.0000
23	1	220	BEG	0.	0.	-9.	-5.	-27.	-0.	.0000	.0000	.0000	.0000	-0.0000	.0000
23	1	225	END	-0.	-0.	9.	4.	29.	0.	.0000	.0000	.0000	.0000	-0.0000	.0000
23	2	230	END	-0.	-0.	9.	1.	32.	0.	.0000	.0000	.0000	.0000	-0.0000	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK



ADLPIPE PAGE 100

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-0.	-0.	9.	-3.	35.	0.	.0000	.0000	.0000	.0000	-.0000	.0000
23	4	240	END	-0.	-0.	9.	-6.	38.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000
24	1	240	BEG	-0.	-0.	-7.	6.	-38.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000
24	1	245	END	0.	0.	7.	-4.	25.	0.	-.0000	-.0000	.0000	-.0000	-.0000	.0000
24	2	250	END	0.	0.	7.	-2.	13.	0.	-.0000	-.0000	.0000	-.0000	.0000	.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	.0000	.0000	-.0000	.0000	.0000
24	3	255	END	0.	0.	7.	0.	0.	0.	.0000	.0000	.0000	-.0000	.0000	.0000

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MCDE 20 FREQUENCY 48.93

NET PT SEG		FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS								
					NX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	12.	12.	-13.	-44.	341.	406.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	-6.	-0.	3.	0.	0.	0.	-0.0000	-0.0000	.0000	0.0000	-0.0000	-0.0000
3	20	-7.	-0.	5.	0.	0.	-0.	-0.0000	-0.0000	.0000	0.0000	-0.0000	.0000
4	30	-4.	-0.	5.	-0.	0.	-0.	-0.0000	-0.0000	.0000	.0000	-0.0000	.0000
5	40	4.	-1.	-0.	-0.	-0.	-0.	.0000	-0.0000	-0.0000	.0000	.0000	.0000
6	50	10.	-1.	-8.	-0.	-0.	0.	.0000	-0.0000	-0.0000	.0000	.0000	-0.0000
7	57	-9.	-6.	0.	0.	0.	0.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
8	70	-3.	-2.	10.	0.	-0.	-0.	-0.0000	-0.0000	.0000	-0.0000	.0000	.0000
9	85	-1.	1.	7.	-0.	-0.	0.	-0.0000	.0000	.0000	-0.0000	.0000	-0.0000
10	87	6.	-2.	-14.	624.	-579.	293.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	-13.	1.	16.	-0.	0.	0.	-0.0000	.0000	.0000	-0.0000	-0.0000	-0.0000
20	175	-3.	-0.	-11.	0.	0.	-0.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	.0000
21	190	3.	-0.	-4.	-0.	-0.	0.	.0000	-0.0000	-0.0000	.0000	.0000	-0.0000
22	205	4.	-0.	-3.	0.	-0.	-0.	.0000	-0.0000	-0.0000	.0000	-0.0000	.0000
23	220	7.	1.	1.	0.	0.	-0.	.0000	.0000	.0000	.0000	-0.0000	.0000
24	240	-0.	-0.	1.	-0.	0.	0.	-0.0000	-0.0000	.0000	.0000	-0.0000	.0000
25	255	0.	0.	7.	0.	0.	0.	.0000	.0000	.0000	-0.0000	.0000	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS HCCCL 1 XYZ SHOCK
HCCCL 20 FREQUENCY 48.93

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	NETXGRK POINT REACTIONS AND DEFLECTIONS	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES (20)

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG											
			SQ,RT,SUM OF SC	7108.	1674.	6840.	345208.	569454.	447183.	0.000	0.000	0.000	0.0000	0.0000
1	1	10	END											
			SQ,RT,SUM OF SC	7108.	1674.	6840.	345239.	568443.	447088.	.000	.000	.000	.0000	.0000
1	2	10	BEG											
			SQ,RT,SUM OF SC	7108.	1674.	6840.	345239.	568443.	447088.	.000	.000	.000	.0000	.0000
1	2	15	END											
			SQ,RT,SUM OF SC	7108.	1674.	6840.	62126.	554786.	184657.	.026	.012	.016	.0005	.0006
2	1	15	BEG											
			SQ,RT,SUM OF SC	6669.	1647.	6661.	62126.	554786.	184657.	.026	.012	.016	.0005	.0006
2	1	20	END											
			SQ,RT,SUM OF SC	6669.	1647.	6661.	105261.	554786.	170128.	.034	.012	.027	.0005	.0007
3	1	20	BEG											
			SQ,RT,SUM OF SC	4997.	1731.	4840.	97274.	181155.	195216.	.034	.012	.027	.0005	.0007
3	1	25	END											
			SQ,RT,SUM OF SC	4997.	1731.	4840.	235874.	181155.	207549.	.048	.012	.045	.0005	.0007
3	2	25	BEG											
			SQ,RT,SUM OF SC	4997.	1731.	4840.	235874.	181155.	207549.	.046	.012	.045	.0005	.0007
3	2	30	END											
			SQ,RT,SUM OF SC	4997.	1731.	4840.	401405.	181155.	333549.	.062	.012	.061	.0004	.0006
4	1	30	BEG											
			SQ,RT,SUM OF SC	3938.	1815.	3709.	401405.	181155.	333549.	.062	.012	.061	.0004	.0006
4	1	35	END											
			SQ,RT,SUM OF SC	3938.	1815.	3709.	530963.	181155.	456104.	.073	.012	.075	.0004	.0006
4	2	35	BEG											
			SQ,RT,SUM OF SC	3938.	1815.	3709.	530963.	181155.	456104.	.073	.012	.075	.0004	.0006
4	2	40	END											
			SQ,RT,SUM OF SC	3938.	1815.	3709.	661477.	181155.	586573.	.083	.012	.087	.0003	.0006
5	1	40	BEG											
			SQ,RT,SUM OF SC	2480.	1923.	2109.	661477.	181155.	586573.	.083	.012	.087	.0003	.0006
5	1	45	END											
			SQ,RT,SUM OF SC	2480.	1923.	2109.	735664.	181155.	668655.	.089	.012	.094	.0001	.0006
5	2	45	BEG											
			SQ,RT,SUM OF SC	2480.	1923.	2109.	735664.	181155.	668655.	.089	.012	.094	.0001	.0006

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
5	2	50 END	2480.	1923.	2109.	810009.	181155.	752129.	.091	.012	.097	.0000	.0005	.0000
6	1	50 BEG	486.	2122.	630.	810009.	181155.	752129.	.091	.012	.097	.0000	.0005	.0000
6	1	55 END	486.	2122.	630.	772809.	181155.	745574.	.085	.012	.092	.0002	.0005	.0002
6	2	55 BEG	486.	2122.	630.	772809.	181155.	745574.	.085	.012	.092	.0002	.0005	.0002
6	2	57 END	486.	2122.	630.	732582.	181155.	739708.	.069	.012	.076	.0003	.0005	.0003
7	1	57 BEG	486.	2987.	7712.	732582.	181155.	739708.	.069	.012	.076	.0003	.0005	.0003
7	1	60 END	486.	2987.	7712.	427724.	181155.	482526.	.055	.012	.061	.0004	.0005	.0004
7	2	60 BEG	486.	2987.	7712.	427724.	181155.	482526.	.055	.012	.061	.0004	.0005	.0004
7	2	65 END	486.	2987.	7712.	126426.	181155.	225807.	.037	.012	.044	.0004	.0005	.0005
7	3	65 BEG	486.	2987.	7712.	126426.	181155.	225807.	.037	.012	.044	.0004	.0005	.0005
7	3	70 END	486.	2987.	7712.	144350.	181155.	24465.	.020	.012	.028	.0004	.0005	.0005
8	1	70 BEG	6972.	3235.	8372.	144350.	181155.	24465.	.020	.012	.028	.0004	.0005	.0005
8	1	75 END	6972.	3235.	8372.	149196.	181155.	23766.	.020	.012	.028	.0004	.0005	.0005
8	2	75 BEG	6972.	3235.	8372.	149196.	181155.	23766.	.020	.012	.028	.0004	.0005	.0005
8	2	80 END	6972.	3235.	8372.	508703.	386865.	438081.	.000	.001	.001	.0000	.0001	.0000
8	3	80 BEG	6972.	3235.	8372.	508703.	386865.	438081.	.000	.001	.001	.0000	.0001	.0000
8	3	85 END	6972.	3235.	8372.	506523.	391745.	439827.	.000	.001	.001	.0000	.0001	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
9	1	85 BEG												
9	1	85 END	6966.	3281.	8471.	506523.	391745.	439827.	.000	.001	.001	.0006	.0001	.0000
9	1	86 BEG												
9	1	86 END	6966.	3281.	8471.	499963.	627262.	522182.	.000	.000	.000	.0006	.0000	.0000
9	2	86 BEG												
9	2	86 END	6966.	3281.	8471.	499963.	627262.	522182.	.000	.000	.000	.0000	.0000	.0000
9	2	87 BEG												
9	2	87 END	6966.	3281.	8471.	74536.	627262.	184776.	.000	.000	.000	.0006	.0000	.0000
10	1	87 BEG												
10	1	87 END	3326.	1171.	4591.	204482.	369447.	85290.	0.000	0.000	0.000	0.0000	0.0000	0.0000
10	1	88 BEG												
10	1	88 END	3326.	1171.	4591.	210270.	267417.	119304.	.000	.000	.000	.0006	.0000	.0000
10	2	88 BEG												
10	2	88 END	3326.	1171.	4591.	210270.	267417.	119304.	.000	.000	.000	.0006	.0000	.0000
10	2	90 BEG												
10	2	90 END	3326.	1171.	4591.	181396.	149135.	125087.	.000	.000	.000	.0000	.0000	.0000
11	1	90 BEG												
11	1	90 END	3241.	1124.	4528.	181396.	149135.	125087.	.000	.000	.000	.0000	.0000	.0000
11	1	95 BEG												
11	1	95 END	3241.	1124.	4528.	180864.	146814.	125198.	.000	.000	.000	.0006	.0000	.0000
11	2	95 BEG												
11	2	95 END	3241.	1124.	4528.	180864.	146814.	125198.	.000	.000	.000	.0006	.0000	.0000
11	2	100 BEG												
11	2	100 END	3241.	1124.	4528.	61641.	32359.	12298.	.008	.005	.008	.0002	.0001	.0001
12	1	100 BEG												
12	1	100 END	2383.	788.	3598.	61641.	32359.	12298.	.008	.005	.008	.0002	.0001	.0001
12	1	105 BEG												
12	1	105 END	2383.	788.	3598.	115142.	32359.	47909.	.009	.005	.011	.0002	.0001	.0001
12	2	105 BEG												
12	2	105 END	2383.	788.	3598.	115142.	32359.	47909.	.009	.005	.011	.0002	.0001	.0001
12	2	107 BEG												
12	2	107 END	2383.	788.	3598.	312697.	32359.	178910.	.013	.005	.019	.0001	.0001	.0001
13	1	107 BEG												
13	1	107 END	428.	857.	710.	312697.	32359.	178910.	.013	.005	.019	.0001	.0001	.0001

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC MEM POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
13 1 110 END SQ,RT,SUM OF SQ	428.	657.	710.	337737.	32359.	194096.	.015	.005	.023	.0001	.0001	.0000
13 2 110 BEG SQ,RT,SUM OF SQ	428.	657.	710.	337737.	32359.	194096.	.015	.005	.023	.0001	.0001	.0000
13 2 115 END SQ,RT,SUM OF SQ	428.	657.	710.	362795.	32359.	209283.	.015	.005	.025	.0000	.0001	.0000
14 1 115 BEG SQ,RT,SUM OF SQ	528.	1050.	849.	362795.	32359.	209283.	.015	.005	.025	.0000	.0001	.0000
14 1 120 END SQ,RT,SUM OF SQ	528.	1050.	849.	332709.	32359.	190671.	.015	.005	.025	.0000	.0001	.0000
14 2 120 BEG SQ,RT,SUM OF SQ	528.	1050.	849.	332709.	32359.	190671.	.015	.005	.025	.0000	.0001	.0000
14 2 125 END SQ,RT,SUM OF SQ	528.	1050.	849.	302629.	32359.	172079.	.013	.005	.023	.0001	.0001	.0001
15 1 125 BEG SQ,RT,SUM OF SQ	1484.	1331.	2528.	302629.	32359.	172079.	.013	.005	.023	.0001	.0001	.0001
15 1 130 END SQ,RT,SUM OF SQ	1484.	1331.	2528.	181303.	32359.	101293.	.009	.005	.018	.0001	.0001	.0001
15 2 130 BEG SQ,RT,SUM OF SQ	1484.	1331.	2528.	181303.	32359.	101293.	.009	.005	.018	.0001	.0001	.0001
15 2 135 END SQ,RT,SUM OF SQ	1484.	1331.	2528.	59980.	32359.	32475.	.004	.005	.010	.0002	.0001	.0001
16 1 135 BEG SQ,RT,SUM OF SQ	1804.	1643.	3294.	59980.	32359.	32475.	.004	.005	.010	.0002	.0001	.0001
16 1 140 END SQ,RT,SUM OF SQ	1804.	1643.	3294.	17673.	32359.	15771.	.003	.005	.008	.0002	.0001	.0001
16 2 140 BEG SQ,RT,SUM OF SQ	1804.	1643.	3294.	17673.	32359.	15771.	.003	.005	.008	.0002	.0001	.0001
16 2 145 END SQ,RT,SUM OF SQ	1804.	1643.	3294.	157079.	84391.	103605.	.000	.001	.001	.0000	.0000	.0000
16 3 145 BEG SQ,RT,SUM OF SQ	1804.	1643.	3294.	157079.	84391.	103605.	.000	.001	.001	.0000	.0000	.0000
16 3 150 END SQ,RT,SUM OF SQ	1804.	1643.	3294.	158175.	85472.	104531.	.000	.001	.001	.0000	.0000	.0000



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
17	1	150 BEG												
		SQ,RT,SUM OF SC	1801.	1679.	3322.	158175.	85472.	104531.	.000	.001	.001	.0000	.0000	.0000
17	1	155 END												
		SQ,RT,SUM OF SC	1801.	1679.	3322.	219714.	147256.	158764.	.000	.000	.000	.0000	.0000	.0000
18	1	20 BEG												
		SQ,RT,SUM CF SC	1440.	1147.	3914.	9815.	726790.	208255.	.034	.012	.027	.0005	.0007	.0004
18	1	160 END												
		SQ,RT,SUM CF SC	1440.	1147.	3914.	9815.	607548.	175384.	.034	.007	.052	.0005	.0017	.0004
18	2	160 BEG												
		SQ,RT,SUM OF SC	1440.	1147.	3914.	9815.	607548.	175384.	.034	.007	.052	.0005	.0017	.0004
18	2	165 END												
		SQ,RT,SUM CF SC	1440.	1147.	3914.	9815.	489146.	143748.	.034	.020	.114	.0005	.0026	.0005
18	3	165 BEG												
		SQ,RT,SUM CF SC	1440.	1147.	3914.	9815.	489146.	143748.	.034	.020	.114	.0005	.0026	.0005
16	3	167 END												
		SQ,RT,SUM CF SC	1440.	1147.	3914.	9815.	336939.	106061.	.034	.043	.222	.0005	.0029	.0006
19	1	167 BEG												
		SQ,RT,SUM OF SC	671.	843.	3604.	9815.	336939.	106061.	.034	.043	.222	.0005	.0029	.0006
19	1	170 END												
		SQ,RT,SUM CF SC	671.	843.	3604.	9815.	192846.	72599.	.034	.070	.350	.0004	.0034	.0007
19	2	170 BEG												
		SQ,RT,SUM CF SC	671.	843.	3604.	9815.	192846.	72599.	.034	.070	.350	.0004	.0034	.0007
19	2	175 END												
		SQ,RT,SUM CF SC	671.	843.	3604.	9815.	51254.	39712.	.034	.101	.493	.0004	.0037	.0008
20	1	175 BEG												
		SQ,RT,SUM CF SC	495.	711.	3433.	9815.	51254.	39712.	.034	.101	.493	.0004	.0037	.0008
20	1	180 END												
		SQ,RT,SUM CF SC	495.	711.	3433.	9815.	91130.	12700.	.034	.136	.640	.0004	.0036	.0009
20	2	180 BEG												
		SQ,RT,SUM CF SC	495.	711.	3433.	9815.	91130.	12700.	.034	.136	.640	.0004	.0036	.0009
20	2	185 END												
		SQ,RT,SUM CF SC	495.	711.	3433.	9815.	156018.	7659.	.034	.152	.709	.0004	.0035	.0009
20	3	185 BEG												
		SQ,RT,SUM CF SC	495.	711.	3433.	9815.	156018.	7659.	.034	.152	.709	.0004	.0035	.0009

MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
20	3	190 END	495.	711.	3433.	22807.	225246.	19730.	.077	.170	.772	.0003	.0019	.0008
21	1	190 BEG	371.	433.	3198.	22807.	225246.	19730.	.077	.170	.772	.0003	.0019	.0008
21	1	195 END	371.	433.	3198.	22971.	225207.	19735.	.077	.170	.772	.0003	.0019	.0008
21	2	195 BEG	371.	433.	3198.	22971.	225207.	19735.	.077	.170	.772	.0003	.0019	.0008
21	2	200 END	371.	433.	3198.	23138.	225167.	19740.	.076	.170	.772	.0003	.0019	.0008
21	3	200 BEG	371.	433.	3198.	23138.	225167.	19740.	.078	.170	.772	.0003	.0019	.0008
21	3	205 END	371.	433.	3198.	33398.	156966.	11135.	.104	.151	.754	.0003	.0004	.0008
22	1	205 BEG	274.	265.	3035.	33398.	156966.	11135.	.104	.151	.754	.0003	.0004	.0008
22	1	210 END	274.	265.	3035.	33398.	126190.	8352.	.104	.142	.751	.0003	.0004	.0008
22	2	210 BEG	274.	265.	3035.	33398.	126190.	8352.	.104	.142	.751	.0003	.0004	.0008
22	2	215 END	274.	265.	3035.	33398.	96129.	5568.	.104	.134	.749	.0003	.0003	.0008
22	3	215 BEG	274.	265.	3035.	33398.	96129.	5568.	.104	.134	.749	.0003	.0003	.0008
22	3	220 END	274.	265.	3035.	38675.	46500.	0.	.102	.112	.750	.0003	.0003	.0009
23	1	220 BEG	134.	94.	2677.	38675.	46500.	0.	.102	.112	.750	.0003	.0003	.0009
23	1	225 END	134.	94.	2677.	37942.	45028.	0.	.098	.107	.750	.0003	.0003	.0009
23	2	225 BEG	134.	94.	2677.	37942.	45028.	0.	.098	.107	.750	.0003	.0003	.0009
23	2	230 END	134.	94.	2677.	36457.	41902.	0.	.087	.094	.750	.0004	.0003	.0009

23 2 230 END
SQ,RT,SUM OF SQ 134. 94. 2677. 36457. 41902. 0. ,087 ,094 ,750 ,0004 ,0003 ,0009

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK
MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	230	BEG											
			SQ,RT,SUM OF SQ	134.	94.	2677.	36457.	41902.	0.	,087	,094	,750	,0004	,0003 ,0009
23	3	235	END											
			SQ,RT,SUM OF SQ	134.	94.	2677.	35263.	39169.	0.	,073	,079	,750	,0004	,0004 ,0009
23	4	235	BEG											
			SQ,RT,SUM OF SQ	134.	94.	2677.	35263.	39169.	0.	,073	,079	,750	,0004	,0004 ,0009
23	4	240	END											
			SQ,RT,SUM OF SQ	134.	94.	2677.	34389.	36914.	0.	,058	,061	,750	,0005	,0005 ,0009
24	1	240	BEG											
			SQ,RT,SUM OF SQ	329.	307.	2203.	34389.	36914.	0.	,058	,061	,750	,0005	,0005 ,0009
24	1	245	END											
			SQ,RT,SUM OF SQ	329.	307.	2203.	22926.	24609.	0.	,040	,042	,750	,0005	,0005 ,0009
24	2	245	BEG											
			SQ,RT,SUM OF SQ	329.	307.	2203.	22926.	24609.	0.	,040	,042	,750	,0005	,0005 ,0009
24	2	250	END											
			SQ,RT,SUM OF SQ	329.	307.	2203.	11463.	12305.	0.	,020	,021	,750	,0006	,0005 ,0009
24	3	250	BEG											
			SQ,RT,SUM OF SQ	329.	307.	2203.	11463.	12305.	0.	,020	,021	,750	,0006	,0005 ,0009
24	3	255	DIS											
			SQ,RT,SUM OF SQ	0.	0.	0.	0.	0.	0.	,000	,000	,750	,0006	,0005 ,0009
24	3	255	END											
			SQ,RT,SUM OF SQ	329.	307.	2203.	0.	0.	0.	,000	,000	,750	,0006	,0005 ,0009

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE NPS MODEL 1 XYZ SHOCK
 RMS MODAL SUMMARY

NET PT SEC	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	51 7108.	1674.	6840.	345208.	569454.	247183.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	153 242.	149.	194.	0.	0.	0.	.0261	.0125	.0160	.0005	.0006	.0004
3	204 462.	198.	429.	0.	0.	0.	.0342	.0125	.0267	.0005	.0007	.0004
4	306 1069.	230.	1133.	0.	0.	0.	.0616	.0124	.0611	.0004	.0006	.0004
5	409 1474.	229.	1603.	0.	0.	0.	.0628	.0124	.0665	.0003	.0006	.0002
6	5010 2448.	367.	2720.	0.	0.	0.	.0912	.0124	.0970	.0000	.0005	.0000
7	5716 6423.	1156.	7098.	0.	0.	0.	.0692	.0123	.0758	.0003	.0005	.0003
8	7015 479.	293.	661.	0.	0.	0.	.0201	.0122	.0282	.0004	.0005	.0005
9	8518 13.	52.	99.	0.	0.	0.	.0001	.0006	.0012	.0000	.0001	.0000
10	8710 7719.	3484.	9635.	217643.	738327.	203510.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	9022 66.	50.	63.	0.	0.	0.	.0004	.0002	.0003	.0000	.0000	.0000
12	10021 859.	559.	932.	0.	0.	0.	.0076	.0050	.0083	.0002	.0001	.0001
13	10716 1955.	748.	2891.	0.	0.	0.	.0128	.0050	.0193	.0001	.0001	.0001
14	11518 954.	307.	1556.	0.	0.	0.	.0152	.0050	.0253	.0000	.0001	.0000
15	12530 957.	359.	1680.	0.	0.	0.	.0129	.0050	.0232	.0001	.0001	.0001
16	13532 320.	361.	767.	0.	0.	0.	.0043	.0049	.0104	.0002	.0001	.0001
17	15036 7.	38.	28.	0.	0.	0.	.0001	.0008	.0006	.0000	.0000	.0000
18	15530 1801.	1679.	3322.	219714.	147256.	158764.	.0000	.0000	.0000	.0000	.0000	.0000
19	16739 744.	682.	1097.	0.	0.	0.	.0343	.0430	.2225	.0005	.0029	.0006
20	17541 155.	192.	265.	0.	0.	0.	.0343	.1014	.4929	.0004	.0037	.0008
21	19044 136.	305.	258.	0.	0.	0.	.0766	.1700	.7716	.0003	.0019	.0008
22	20547 110.	190.	171.	0.	0.	0.	.1040	.1508	.7539	.0003	.0004	.0008
23	2205 259.	325.	359.	0.	0.	0.	.1020	.1121	.7496	.0003	.0003	.0009
24	24051 302.	302.	474.	0.	0.	0.	.0576	.0612	.7500	.0005	.0005	.0009
25	25552 329.	307.	2203.	0.	0.	0.	.0000	.0000	.7503	.0006	.0005	.0009

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

RMS MODAL SUMMARY

NETWORK POINT REACTIONS AND DEFLECTIONS

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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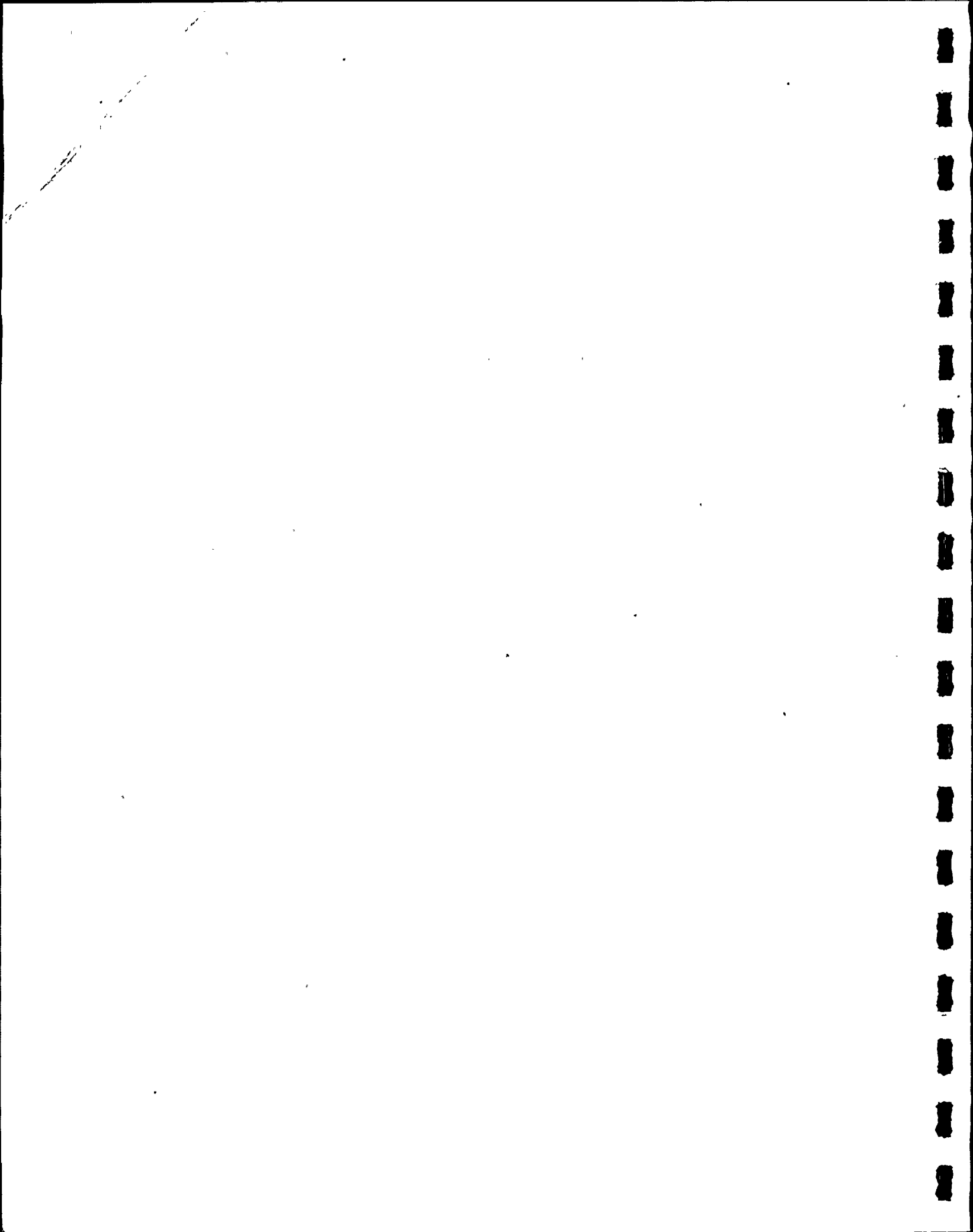
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE,
USAS 831.1 STRESS SUMMARY

SEC	MEM	SEG	POS	TYPE	TORSIGN	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
1	1	5	BEG	RU	440.9	1073.5	1389.3	0.0	1.000	1.000
		10	END	RU	440.9	1071.9	1388.0	0.0	1.000	1.000
1	2	10	BEG	EL	440.9	2366.9	2525.6	0.0	2.208	2.208
		15	END	EL	-480.4	745.1	1215.9	0.0	2.208	2.208
2	1	15	BEG	RU	-480.4	337.4	1018.4	0.0	1.000	1.000
		20	END	RU	-480.4	346.5	1021.4	0.0	1.000	1.000
3	1	20	BEG	RU	-156.9	377.8	491.1	0.0	1.000	1.000
		25	END	RU	-156.9	544.2	628.1	0.0	1.000	1.000
3	2	25	BEG	RU	-156.9	544.2	628.1	0.0	1.000	1.000
		30	END	RU	-156.9	903.9	956.8	0.0	1.000	1.000
4	1	30	BEG	RU	-156.9	903.9	956.8	0.0	1.000	1.000
		35	END	RU	-156.9	1212.3	1252.3	0.0	1.000	1.000
4	2	35	BEG	RU	-156.9	1212.3	1252.3	0.0	1.000	1.000
		40	END	RU	-156.9	1531.2	1563.0	0.0	1.000	1.000
5	1	40	BEG	RU	-156.9	1531.2	1563.0	0.0	1.000	1.000
		45	END	RU	-156.9	1721.8	1750.2	0.0	1.000	1.000
5	2	45	BEG	RU	-156.9	1721.8	1750.2	0.0	1.000	1.000
		50	END	RU	-156.9	1914.5	1940.0	0.0	1.000	1.000
6	1	50	BEG	RU	-156.9	1914.5	1940.0	0.0	1.000	1.000
		55	END	RU	-156.9	1859.9	1886.1	0.0	1.000	1.000
6	2	55	BEG	RU	-76.9	911.5	924.3	0.0	1.000	1.000
		57	END	RU	-76.9	883.7	896.9	0.0	1.000	1.000
7	1	57	BEG	RU	-156.9	1803.1	1830.2	0.0	1.000	1.000
		60	END	RU	-156.9	1116.6	1160.0	0.0	1.000	1.000
7	2	60	BEG	RU	-156.9	1116.6	1160.0	0.0	1.000	1.000
		65	END	RU	-156.9	448.2	547.1	0.0	1.000	1.000
7	3	65	BEG	RU	-156.9	448.2	547.1	0.0	1.000	1.000
		70	END	RU	-156.9	253.6	403.4	0.0	1.000	1.000



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE,
USAS 831.1 STRESS SUMMARY

SEC	MEM	SEQ	POS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
6	1	70	BEG	RU	-156.9	253.6	403.4	0.0	1.000	1.000
		75	END	RU	-156.9	261.7	408.5	0.0	1.000	1.000
8	2	75	BEG	EL	-156.9	577.6	657.5	0.0	2.208	2.208
		80	END	EL	396.4	2391.0	2519.0	0.0	2.208	2.208
8	3	80	BEG	RU	396.4	1082.8	1342.0	0.0	1.000	1.000
		85	END	RU	396.0	1090.4	1347.7	0.0	1.000	1.000
9	1	85	BEG	RU	87.1	240.9	297.2	0.0	1.000	1.000
		86	END	RU	83.7	325.1	365.6	0.0	1.000	1.000
9	2	86	BEG	RU	83.7	325.1	365.6	0.0	1.000	1.000
		87	END	RU	119.8	76.1	251.4	0.0	1.000	1.000
10	1	87	BEG	RU	41.3	149.9	171.1	0.0	1.000	1.000
		88	END	RU	43.6	106.6	137.7	0.0	1.000	1.000
10	2	88	BEG	RU	43.6	106.6	137.7	0.0	1.000	1.000
		90	END	RU	-17.4	95.5	101.6	0.0	1.000	1.000
11	1	90	BEG	RU	-78.7	433.1	460.8	0.0	1.000	1.000
		95	END	RU	-78.9	430.0	458.0	0.0	1.000	1.000
11	2	95	BEG	EL	-78.9	949.5	962.5	0.0	2.208	2.208
		100	END	EL	28.0	240.4	246.8	0.0	2.208	2.208
12	1	100	BEG	RU	28.0	108.9	122.4	0.0	1.000	1.000
		105	END	RU	28.0	216.0	223.2	0.0	1.000	1.000
12	2	105	BEG	RU	13.7	105.9	109.4	0.0	1.000	1.000
		107	END	RU	13.7	305.8	307.0	0.0	1.000	1.000
13	1	107	BEG	RU	28.0	624.0	626.5	0.0	1.000	1.000
		110	END	RU	28.0	674.7	677.0	0.0	1.000	1.000
13	2	110	BEG	RU	28.0	674.7	677.0	0.0	1.000	1.000
		115	END	RU	28.0	725.4	727.6	0.0	1.000	1.000
14	1	115	BEG	RU	28.0	725.4	727.6	0.0	1.000	1.000
		120	END	RU	28.0	664.2	666.5	0.0	1.000	1.000
14	2	120	BEG	RU	28.0	664.2	666.5	0.0	1.000	1.000
		125	END	RU	28.0	603.0	605.6	0.0	1.000	1.000

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE.
USAS B31.1 STRESS SUMMARY

SEC	MEM	SEQ	PCS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
15	1	125 BEG	RU		26.0	603.0	605.6	0.0	1.000	1.000
		130 END	RU		28.0	359.7	364.0	0.0	1.000	1.000
15	2	130 BEG	RU		28.0	359.7	364.0	0.0	1.000	1.000
		135 END	RU		28.0	118.1	130.8	0.0	1.000	1.000
16	1	135 BEG	RU		28.0	118.1	130.8	0.0	1.000	1.000
		140 END	RU		28.0	41.0	69.5	0.0	1.000	1.000
16	2	140 BEG	EL		28.0	90.6	106.5	0.0	2.208	2.208
		145 END	EL		-140.3	488.2	563.1	0.0	2.208	2.208
16	3	145 BEG	RU		-140.3	221.1	357.2	0.0	1.000	1.000
		150 END	RU		-141.2	223.5	360.2	0.0	1.000	1.000
17	1	150 BEG	RU		-141.2	223.5	360.2	0.0	1.000	1.000
		155 END	RU		-196.9	361.1	534.3	0.0	1.000	1.000
18	1	20 BEG	RU		-49.8	7674.2	7674.9	0.0	1.000	1.000
		160 END	RU		-49.8	6418.8	6419.5	0.0	1.000	1.000
18	2	160 BEG	RU		-49.8	6418.8	6419.5	0.0	1.000	1.000
		165 END	RU		-49.8	5175.1	5176.0	0.0	1.000	1.000
18	3	165 BEG	RU		-19.4	2018.3	2018.6	0.0	1.000	1.000
		167 END	RU		-19.4	1398.4	1398.9	0.0	1.000	1.000
19	1	167 BEG	RU		-49.8	3585.6	3586.9	0.0	1.000	1.000
		170 END	RU		-49.8	2091.6	2094.6	0.0	1.000	1.000
19	2	170 BEG	RU		-49.8	2091.6	2094.6	0.0	1.000	1.000
		175 END	RU		-49.0	658.2	665.6	0.0	1.000	1.000
20	1	175 BEG	RU		-49.8	658.2	665.6	0.0	1.000	1.000
		180 END	RU		-49.8	932.0	939.3	0.0	1.000	1.000
20	2	180 BEG	RU		-49.8	932.0	939.3	0.0	1.000	1.000
		185 END	RU		-49.8	1585.6	1588.7	0.0	1.000	1.000
20	3	185 BEG	EL		-49.8	2817.5	2819.3	0.0	1.777	1.777
		190 END	EL		181.3	4048.1	4064.3	0.0	1.777	1.777
21	1	190 BEG	RU		178.6	2274.6	2306.8	0.0	1.000	1.000
		195 END	RU		178.6	2278.7	2306.5	0.0	1.000	1.000



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE NPS MODEL 1 XYZ SHOCK

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE,
USAS B31.1 STRESS SUMMARY

SEC	MEM	SEQ	PCS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
21	2	195 BEG	RU		178.6	2278.7	2306.5	0.0	1.000	1.000
		200 END	RU		181.5	2277.6	2306.3	0.0	1.000	1.000
21	3	200 BEG	EL		181.5	4047.2	4063.5	0.0	1.777	1.777
		205 END	EL		169.5	2838.4	2858.5	0.0	1.777	1.777
22	1	205 BEG	RU		169.5	1597.3	1632.9	0.0	1.000	1.000
		210 END	RU		169.5	1283.7	1327.7	0.0	1.000	1.000
22	2	210 BEG	RU		169.5	1283.7	1327.7	0.0	1.000	1.000
		215 END	RU		169.5	977.4	1034.5	0.0	1.000	1.000
22	3	215 BEG	EL		169.5	1736.8	1769.6	0.0	1.777	1.777
		220 END	EL		.0	1090.9	1090.9	0.0	1.777	1.777
23	1	220 BEG	RU		.0	613.9	613.9	0.0	1.000	1.000
		225 END	RU		.0	597.7	597.7	0.0	1.000	1.000
23	2	225 BEG	RU		.0	597.7	597.7	0.0	1.000	1.000
		230 END	RU		.0	563.8	563.8	0.0	1.000	1.000
23	3	230 BEG	RU		.0	563.8	563.8	0.0	1.000	1.000
		235 END	RU		.0	535.0	535.0	0.0	1.000	1.000
23	4	235 BEG	RU		.0	535.0	535.0	0.0	1.000	1.000
		240 END	RU		.0	512.1	512.1	0.0	1.000	1.000
24	1	240 BEG	RU		0.0	512.1	512.1	0.0	1.000	1.000
		245 END	RU		0.0	341.4	341.4	0.0	1.000	1.000
24	2	245 BEG	RU		0.0	341.4	341.4	0.0	1.000	1.000
		250 END	RU		0.0	170.7	170.7	0.0	1.000	1.000
24	3	250 BEG	RU		0.0	170.7	170.7	0.0	1.000	1.000
		255 END	RU		0.0	.0	.0	0.0	1.000	1.000



ADLPIPE PAGE 1

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

VERSION ADLPIPE JULY, 1975
REFERENCE ADLPIPE MANUAL, DATED JANUARY 1975

FEATURES OF ADLPIPE

1. ASME SECTION III , CLASS 1 STRESS ANALYSIS AND STRESS REPORT PER NB 3600
2. ASME SECTION III , CLASS 1 USAGE FACTOR CALCULATION
3. ASME SECTION III , CLASS 2 AND 3 STRESS ANALYSIS AND STRESS REPORT PER WINTER 1972 ADDENDA
4. ANSI B31.1 , 1967 AND 1973 STRESS ANALYSIS AND REPORT
5. ISOMETRIC PLOT WITH SEQUENCE NUMBERS
6. ISOMETRIC PLOTTING WITH OR WITHOUT DIMENSIONS
7. PLAN AND ELEVATION DRAWINGS WITH OR WITHOUT DIMENSIONS
8. STEREOSCOPIC VIEWS OF DEFORMED PIPING
9. SKEW RESTRAINT ADDED (SEE REFERENCED INPUT MANUAL P. 39)
10. REVISED TAPE 14 FILE STRUCTURE (SEE REFERENCED INPUT MANUAL P. 43)
11. OPTIONAL ABSOLUTE SUM ON CLOSELY SPACED MODES
(ACTIVATE BY SPECIFYING PERCENT RANGE OF MODES TO BE ABSOLUTELY SUMMED IN Z(2) FIELD ON SHOCK CARD)
12. HANGER SUMMARY IS AUTOMATICALLY PROVIDED

FOR FURTHER INFORMATION OR COMMENT CONTACT:

I. W. DINGWELL
A. D. LITTLE, INC
ACORN PARK
CAMBRIDGE, MASS 02140
TEL (617) 864-5770

ADLPIPE PAGE 2

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 2

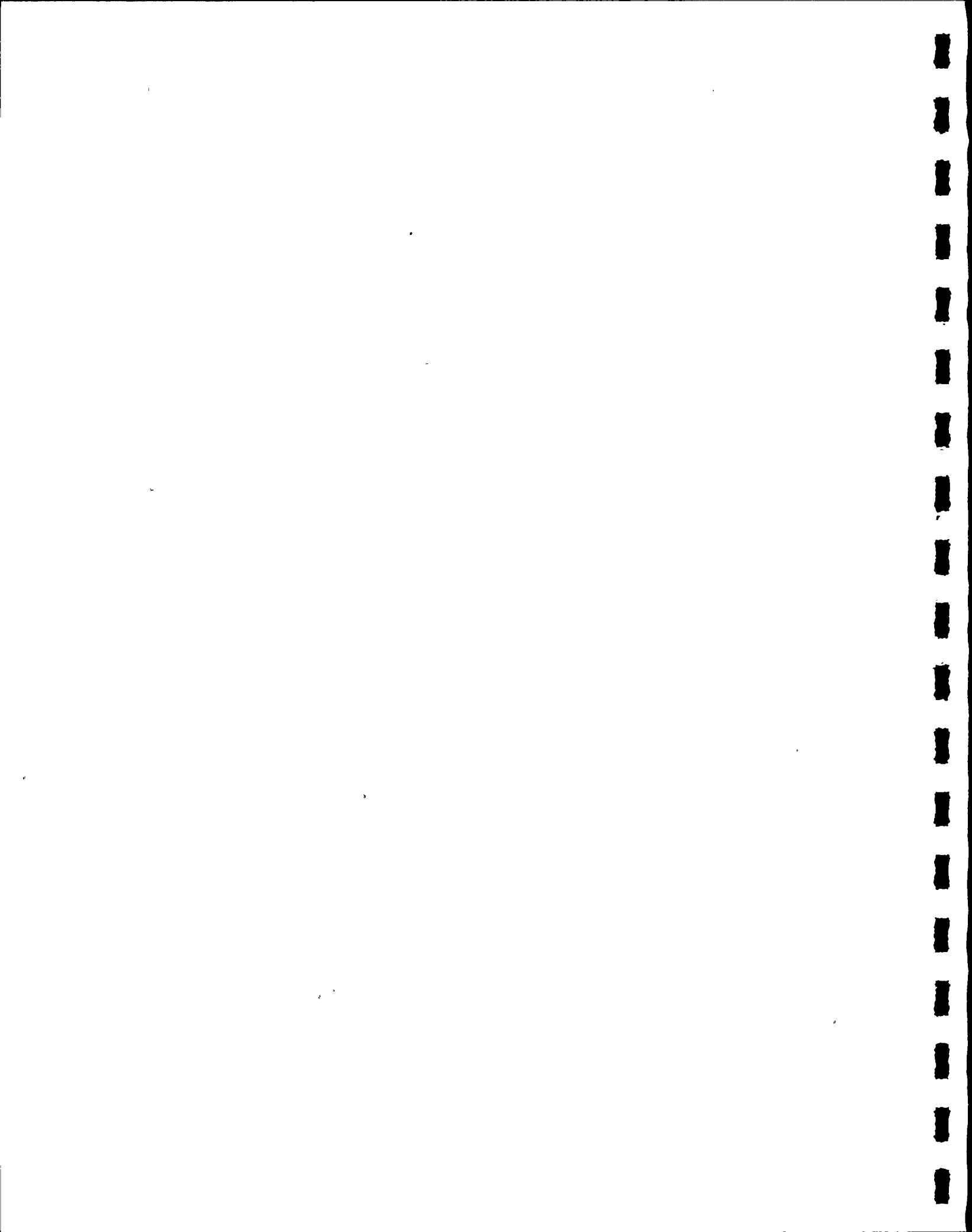
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

COMPILED INPUT DATA

SA	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BS	1	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SH	1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DI	0	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FR	1	6	.1000	.3000	.5000	.7000	.8000	.9000
FR	7	12	1.0000	2.0000	3.0000	4.0000	5.0000	6.0000
FR	13	17	8.0000	10.0000	20.0000	50.0000	100.0000	0.0000
G	1	6	.0540	.0580	.0700	.0930	.1100	.1200
G	7	12	.1300	.2400	.3200	.3800	.4200	.4200
G	13	17	.3900	.3500	.2400	.1400	.1100	0.0000
EN	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 3

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK



PIPE SYSTEM GEOMETRY
 NUMBER OF NETWORK POINTS = 25
 NUMBER OF SECTIONS = 24
 ORDER OF DYNAMICAL STIFFNESS MATRIX = 64

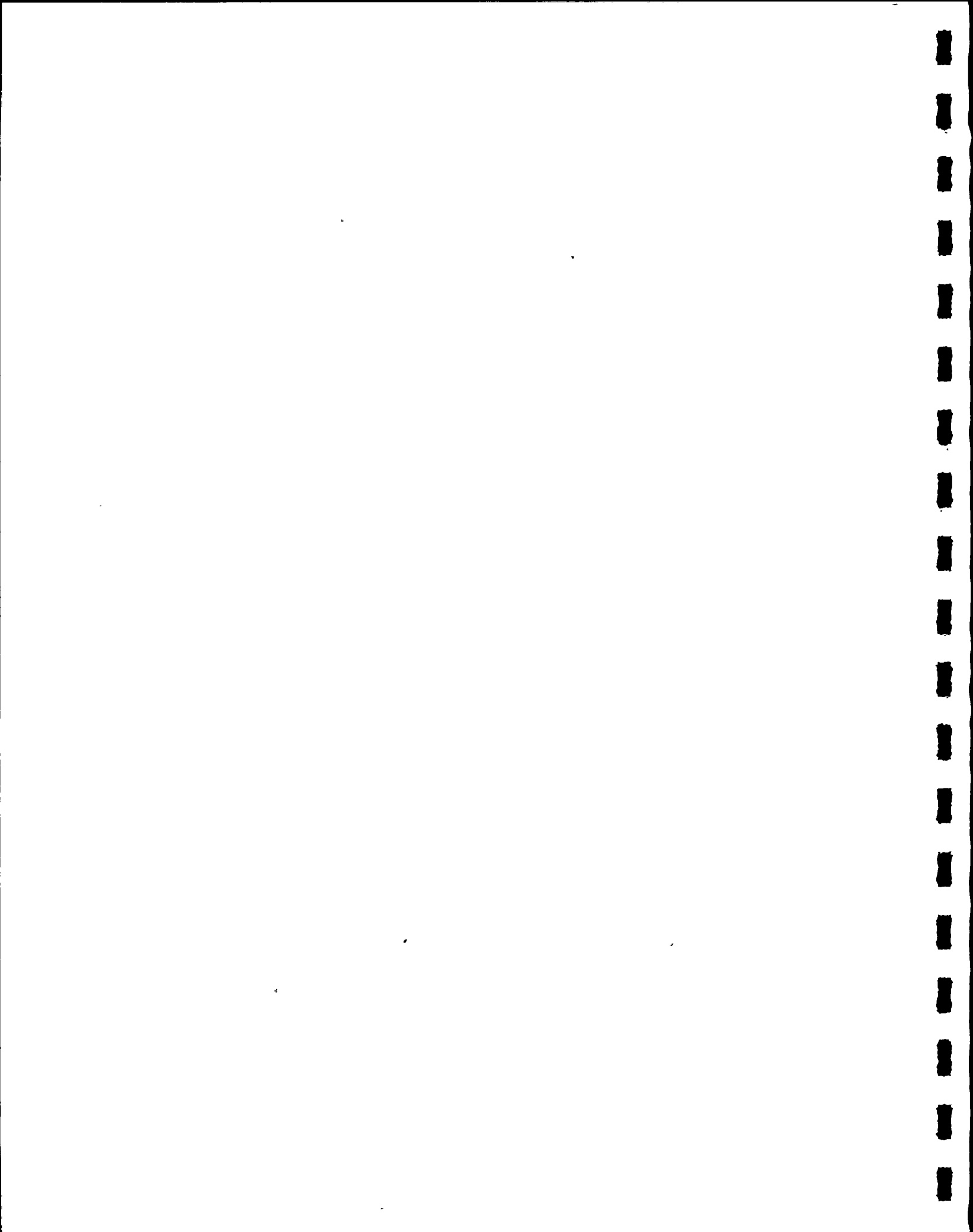
NUMBER OF MEMBERS = 56
 ORDER OF STIFFNESS MATRIX = 66

NETWORK POINT RESTRAINTS

NETWORK PT.	SEQ	TRANSLATION			ROTATION		
		X	Y	Z	X	Y	Z
1	5	RST	RST	RST	RST	RST	RST
2	15	FREE	FREE	FREE	FREE	FREE	FREE
3	20	FREE	FREE	FREE	FREE	FREE	FREE
4	30	FREE	FREE	FREE	FREE	FREE	FREE
5	40	FREE	FREE	FREE	FREE	FREE	FREE
6	50	FREE	FREE	FREE	FREE	FREE	FREE
7	57	FREE	FREE	FREE	FREE	FREE	FREE
8	70	FREE	FREE	FREE	FREE	FREE	FREE
9	85	FREE	FREE	FREE	FREE	FREE	FREE
10	87	RST	RST	RST	RST	RST	RST
11	90	FREE	FREE	FREE	FREE	FREE	FREE
12	100	FREE	FREE	FREE	FREE	FREE	FREE
13	107	FREE	FREE	FREE	FREE	FREE	FREE
14	115	FREE	FREE	FREE	FREE	FREE	FREE
15	125	FREE	FREE	FREE	FREE	FREE	FREE
16	135	FREE	FREE	FREE	FREE	FREE	FREE
17	150	FREE	FREE	FREE	FREE	FREE	FREE
18	155	RST	RST	RST	RST	RST	RST
19	167	FREE	FREE	FREE	FREE	FREE	FREE
20	175	FREE	FREE	FREE	FREE	FREE	FREE
21	190	FREE	FREE	FREE	FREE	FREE	FREE
22	205	FREE	FREE	FREE	FREE	FREE	FREE
23	220	FREE	FREE	FREE	FREE	FREE	FREE
24	240	FREE	FREE	FREE	FREE	FREE	FREE
25	255	RST	RST	FREE	FREE	FREE	FREE

NETWORK POINT MOVEMENTS (INCHES)

NETWORK PT.	SEQ	TRANSLATION			ROTATION		
		X	Y	Z	X	Y	Z



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

NO MOVEMENTS

ADLPIPE PAGE 5

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 5

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

RESPONSE SPECTRA

FREQUENCY X AMPLITUDE

.10	52.7925
.30	6.3011
.50	2.7377
.70	1.8557
.80	1.6805
.90	1.4485
1.00	1.2711
2.00	.5866
3.00	.3476
4.00	.2322
5.00	.1643
6.00	.1141
8.00	.0596
10.00	.0342
20.00	.0059
50.00	.0005
100.00	.0001

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

| | |
x y w-

* NOTE *

FOR CURVED MEMBERS, QUANTITIES LISTED UNDER
INITIAL CO-ORDS ARE CO-ORDS OF ARC CENTER
THE BRACKETED NUMBERS WHICH FOLLOW ARE THE
ARC RADIUS (IN), INCLUDED ANGLE (DEG).

* NOTE *

FOR THIS VERSION, CO-ORD DIMENSIONS IN FEET
ALL OTHER QUANTITIES, RADIUS, THICKNESS, STRESS
MOMENTS, ETC. ARE DIMENSIONED IN INCHES.

PIPE SYSTEM GEOMETRY

SECTION 1 CONNECTS SEQUENCE POINTS 5 AND 15 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	5	10	14.00	1.050	2.59	274.75	12.19	2.60	274.75	12.24	.27E+08	0.00	0.	44.18
2	EL/EL	10	15	14.00	1.050	2.60	271.00	12.24	(45.000 90.000)			.27E+08	0.00	0.	44.18

SECTION 2 CONNECTS SEQUENCE POINTS 15 AND 20 AND HAS 1 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	15	20	14.00	1.050	3.38	271.00	15.91	3.38	269.25	15.91	.27E+08	0.00	0.	44.18

SECTION 3 CONNECTS SEQUENCE POINTS 20 AND 30 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	20	25	14.00	1.050	3.38	269.25	15.91	3.38	266.29	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	25	30	14.00	1.050	3.38	266.29	15.91	3.38	263.32	15.91	.27E+08	0.00	0.	44.18

SECTION 4 CONNECTS SEQUENCE POINTS 30 AND 40 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SG IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
						-----FEET-----									
1	RU/RU	30	35	14.00	1.050	3.38	263.32	15.91	3.38	260.36	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	35	40	14.00	1.050	3.38	260.36	15.91	3.38	257.39	15.91	.27E+08	0.00	0.	44.18

SECTION 5 CONNECTS SEQUENCE POINTS 40 AND 50 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SG IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
						-----FEET-----									
1	RU/RU	40	45	14.00	1.050	3.38	257.39	15.91	3.38	254.43	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	45	50	14.00	1.050	3.38	254.43	15.91	3.38	251.46	15.91	.27E+08	0.00	0.	44.18

SECTION 6 CONNECTS SEQUENCE POINTS 50 AND 57 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
						-----FEET-----									
1	RU/RU	50	55	14.00	1.050	3.38	251.46	15.91	3.38	246.46	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	55	57	15.00	2.050	3.38	246.46	15.91	3.38	241.64	15.91	.27E+08	0.00	0.	215.20

SECTION 7 CONNECTS SEQUENCE POINTS 57 AND 70 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-CRDS			FINAL CO-CRDS			MODULUS LB/SG IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
						-----FEET-----									
1	RU/RU	57	60	14.00	1.050	3.38	241.64	15.91	3.38	237.74	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	60	65	14.00	1.050	3.38	237.74	15.91	3.38	234.44	15.91	.27E+08	0.00	0.	44.18
3	RU/RU	65	70	14.00	1.050	3.38	234.44	15.91	3.38	231.64	15.91	.27E+08	0.00	0.	44.18

SECTION 8 CONNECTS SEQUENCE POINTS 70 AND 85 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	70	75	14.00	1.050	3.38	231.64	15.91	3.38	231.59	15.91	.27E+08	0.00	0.	44.18
2	EL/EL	75	80	14.00	1.050	7.11	231.59	15.49	(45,000	90,000)		.27E+08	0.00	0.	44.18
3	RU/RU	80	85	14.00	1.050	7.11	227.84	15.49	7.16	227.84	15.49	.27E+08	0.00	0.	44.18

SECTION 9 CONNECTS SEQUENCE POINTS 85 AND 87 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	85	86	15.00	10.000	7.16	227.84	15.49	9.42	227.84	15.23	.27E+08	0.00	0.	324.36
2	RU/RU	86	87	15.00	10.000	9.42	227.84	15.23	9.42	232.17	15.23	.27E+08	0.00	0.	324.36

SECTION 10 CONNECTS SEQUENCE POINTS 87 AND 90 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	87	88	15.00	10.000	9.42	232.17	15.23	12.04	232.17	15.71	.27E+08	0.00	0.	324.36
2	RU/RU	88	90	15.00	10.000	12.04	232.17	15.71	12.48	232.17	13.30	.27E+08	0.00	0.	324.36

SECTION 11 CONNECTS SEQUENCE POINTS 90 AND 100 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	90	95	14.00	1.050	12.48	232.17	13.30	12.48	232.17	13.25	.27E+08	0.00	0.	44.18
2	EL/EL	95	100	14.00	1.050	12.48	235.92	13.25	(45,000	90,000)		.27E+08	0.00	0.	44.18

SECTION12 CONNECTS SEQUENCE POINTS 100 AND 107 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	100	105	14.00	1.050	13.15	235.92	9.56	13.15	237.17	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	105	107	15.00	2.050	13.15	237.17	9.56	13.15	241.75	9.56	.27E+08	0.00	0.	173.10

SECTION13 CONNECTS SEQUENCE POINTS 107 AND 115 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	107	110	14.00	1.050	13.15	241.75	9.56	13.15	244.71	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	110	115	14.00	1.050	13.15	244.71	9.56	13.15	247.66	9.56	.27E+08	0.00	0.	44.18

SECTION14 CONNECTS SEQUENCE POINTS 115 AND 125 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	115	120	14.00	1.050	13.15	247.66	9.56	13.15	250.62	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	120	125	14.00	1.050	13.15	250.62	9.56	13.15	253.57	9.56	.27E+08	0.00	0.	44.18

SECTION15 CONNECTS SEQUENCE POINTS 125 AND 135 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	125	130	14.00	1.050	13.15	253.57	9.56	13.15	257.57	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	130	135	14.00	1.050	13.15	257.57	9.56	13.15	261.57	9.56	.27E+08	0.00	0.	44.18

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

SECTION16 CONNECTS SEQUENCE POINTS 135 AND 150 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	135	140	14.00	1.050	13.15	261.57	9.56	13.15	262.64	9.56	.27E+08	0.00 0.		44.18
2	EL/EL	140	145	14.00	1.050	10.12	262.64	7.35	(45.000	75.997)		.27E+08	0.00 0.		44.18
3	RU/RU	145	150	14.00	1.050	10.85	266.28	7.89	10.81	266.29	7.85	.27E+08	0.00 0.		44.18

SECTION17 CONNECTS SEQUENCE POINTS 150 AND 155 AND HAS 1 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	150	155	14.00	1.050	10.81	266.29	7.85	8.47	267.02	6.15	.27E+08	0.00 0.		44.18

SECTION18 CONNECTS SEQUENCE POINTS 160 AND 167 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	160	160	7.00	.753	3.38	269.25	15.91	.80	269.25	15.91	.27E+08	0.00 0.		13.18
2	RU/RU	160	165	7.00	.753	.80	269.25	15.91	-1.77	269.25	15.91	.27E+08	0.00 0.		13.18
3	RU/RU	165	167	8.00	1.753	-1.77	269.25	15.91	-5.14	269.25	15.91	.27E+08	0.00 0.		98.17

SECTION19 CONNECTS SEQUENCE POINTS 167 AND 175 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	167	170	7.00	.753	-5.14	269.25	15.91	-8.48	269.25	15.91	.27E+08	0.00 0.		13.18
2	RU/RU	170	175	7.80	.753	-8.48	269.25	15.91	-11.82	269.25	15.91	.27E+08	0.00 0.		13.18



SECTION20 CONNECTS SEQUENCE POINTS 175 AND 190 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	175	180	7.00	.753	-11.82	269.25	15.91	-15.17	269.25	15.91	.27E+08	0.00	0.	13.18
2	RU/RU	180	185	7.00	.753	-15.17	269.25	15.91	-16.76	269.25	15.91	.27E+08	0.00	0.	13.18
3	EL/EL	185	190	7.00	.753	-16.76	269.37	17.65	(21.000 90.000)			.27E+08	0.00	0.	13.18

SECTION21 CONNECTS SEQUENCE POINTS 190 AND 205 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	190	195	7.00	.753	-18.51	269.37	17.65	-18.51	269.38	17.68	.27E+08	0.00	0.	13.18
2	RU/RU	195	200	7.00	.753	-18.51	269.38	17.68	-18.51	269.38	17.71	.27E+08	0.00	0.	13.18
3	EL/EL	200	205	7.00	.753	-18.76	269.38	17.71	(21.000 90.000)			.27E+08	0.00	0.	13.18

SECTION22 CONNECTS SEQUENCE POINTS 205 AND 220 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	205	210	7.00	.753	-16.76	269.50	19.45	-15.88	269.50	19.45	.27E+08	0.00	0.	13.18
2	RU/RU	210	215	7.00	.753	-15.88	269.50	19.45	-15.01	269.50	19.45	.27E+08	0.00	0.	13.18
3	EL/EL	215	220	7.00	.753	-15.01	269.50	21.20	(21.000 90.000)			.27E+08	0.00	0.	13.18

SECTION23 CONNECTS SEQUENCE POINTS 220 AND 240 AND HAS 4 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	220	225	7.00	.753	-13.26	269.50	21.20	-13.26	269.50	22.57	.27E+08	0.00	0.	13.18
2	RU/RU	225	230	7.00	.753	-13.26	269.50	22.57	-13.26	269.50	25.68	.27E+08	0.00	0.	13.18

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

MEM	TYPE	FROM	TO	CUTER RAD, IN	WALL THK. IN	INITIAL CO-GRDS X Y Z	FINAL CO-GRDS X Y Z	MODULUS LB/SQ IN	CHANGE DEG F	EXPAN, IN/IN	WEIGHT LB/IN
3	RU/RU	230	235	7.00	.753	-13.26 269.50 25.68	-13.26 269.50 28.79	.27E+08	0.00 0.	13.18	
4	RU/RU	235	240	7.00	.753	-13.26 269.50 28.79	-13.26 269.50 31.91	.27E+08	0.00 0.	13.18	

SECTION 24 CONNECTS SEQUENCE POINTS 240 AND 255 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD, IN	WALL THK. IN	INITIAL CO-GRDS X Y Z	FINAL CO-GRDS X Y Z	MODULUS LB/SQ IN	CHANGE DEG F	EXPAN, IN/IN	WEIGHT LB/IN
1	RU/RU	240	245	7.00	.753	-13.26 269.50 31.91	-13.26 269.50 35.02	.27E+08	0.00 0.	13.18	
2	RU/RU	245	250	7.00	.753	-13.26 269.50 35.02	-13.26 269.50 38.13	.27E+08	0.00 0.	13.18	
3	RU/RU	250	255	7.00	.753	-13.26 269.50 38.13	-13.26 269.50 41.25	.27E+08	0.00 0.	13.18	
WEIGHT						.66E+04					

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ARTHUR D. LITTLE INC.
NINE MILE POWER STATADLPIPE STRESS ANALYSIS
MODEL 1 X SHOCK



MODAL DEFLECTIONS FOR 20 FREQUENCIES
DEFLECTIONS INCLUDE SHOCK SPECTRA DISPLACEMENTS AND MODAL PARTICIPATION FACTORS

		MODE AND FREQUENCY									
		1	2	3	4	5	6	7	8	9	10
		1.927	3.721	7.612	8.611	11.592	13.072	13.839	15.804	15.926	18.087
LUMP	DIR										
15	1	.001	.001	.009	.002	.000	-.000	0.000	0.000	-.000	-.000
15	2	.000	.000	.006	.000	-.000	.000	0.000	0.000	-.000	.000
15	3	.006	.000	.007	-.002	-.000	.000	0.000	0.000	-.000	.000
20	1	.002	.002	.013	.012	.003	-.000	0.000	0.000	-.000	-.000
20	2	.000	.000	.006	.000	-.000	.000	0.000	0.000	-.000	.000
20	3	.000	.000	.012	-.007	-.000	.000	0.000	0.000	-.000	.000
30	1	.002	.005	.027	.024	-.000	-.000	0.000	0.000	-.000	-.000
30	2	.000	.000	.006	.000	-.000	.000	0.000	0.000	-.000	.000
30	3	.001	.000	.028	-.020	-.000	.000	0.000	0.000	-.000	.000
40	1	.002	.006	.037	.033	-.000	.000	0.000	0.000	-.000	-.000
40	2	.000	.000	.006	.001	-.000	.000	0.000	0.000	-.000	.000
40	3	.001	.000	.040	-.030	-.000	.000	0.000	0.000	-.000	.000
50	1	.002	.006	.041	.037	-.001	.000	0.000	0.000	-.000	-.000
50	2	.000	.000	.006	.001	-.000	.000	0.000	0.000	-.000	.000
50	3	.001	.000	.045	-.035	-.000	.000	0.000	0.000	-.000	.000
57	1	.001	.004	.032	.026	-.001	.000	0.000	0.000	-.000	.000
57	2	.000	.000	.006	.001	-.000	.000	0.000	0.000	-.000	.000
57	3	.001	.000	.035	-.028	.000	.000	0.000	0.000	-.000	.000
70	1	.000	.001	.009	.005	-.000	.000	0.000	0.000	-.000	.000
70	2	.000	.000	.006	.001	-.000	.000	0.000	0.000	-.000	.000
70	3	.001	.000	.013	-.009	.000	.000	0.000	0.000	-.000	.000
85	1	-.000	.000	-.000	.000	-.000	.000	0.000	0.000	-.000	-.000
85	2	.000	-.000	.000	-.000	.000	.000	0.000	0.000	-.000	.000
85	3	.000	.000	.001	-.000	.000	.000	0.000	0.000	-.000	.000
90	1	0.000	0.000	0.000	0.000	0.000	0.000	.000	.000	0.000	0.000
90	2	0.000	0.000	0.000	0.000	0.000	0.000	.000	.000	0.000	0.000
90	3	0.000	0.000	0.000	0.000	0.000	0.000	.000	.000	0.000	0.000
100	1	0.000	0.000	0.000	0.000	0.000	0.000	.003	.004	0.000	0.000
100	2	0.000	0.000	0.000	0.000	0.000	0.000	.002	-.001	0.000	0.000
100	3	0.000	0.000	0.000	0.000	0.000	0.000	.003	-.001	0.000	0.000
107	1	0.000	0.000	0.000	0.000	0.000	0.000	.002	-.009	0.000	0.000
107	2	0.000	0.000	0.000	0.000	0.000	0.000	.002	-.001	0.000	0.000
107	3	0.000	0.000	0.000	0.000	0.000	0.000	.007	-.004	0.000	0.000
115	1	0.000	0.000	0.000	0.000	0.000	0.000	.005	-.011	0.000	0.000
115	2	0.000	0.000	0.000	0.000	0.000	0.000	.002	-.001	0.000	0.000
115	3	0.000	0.000	0.000	0.000	0.000	0.000	.009	-.007	0.000	0.000
125	1	0.000	0.000	0.000	0.000	0.000	0.000	.004	-.009	0.000	0.000
125	2	0.000	0.000	0.000	0.000	0.000	0.000	.002	-.001	0.000	0.000
125	3	0.000	0.000	0.000	0.000	0.000	0.000	.008	-.007	0.000	0.000
135	1	0.000	0.000	0.000	0.000	0.000	0.000	.001	-.005	0.000	0.000
135	2	0.000	0.000	0.000	0.000	0.000	0.000	.002	-.000	0.000	0.000
135	3	0.000	0.000	0.000	0.000	0.000	0.000	.002	-.003	0.000	0.000
150	1	0.000	0.000	0.000	0.000	0.000	0.000	-.000	.000	0.000	0.000
150	2	0.000	0.000	0.000	0.000	0.000	0.000	.000	-.000	0.000	0.000
150	3	0.000	0.000	0.000	0.000	0.000	0.000	.000	-.000	0.000	0.000
167	1	.002	.002	.013	.012	.000	-.000	0.000	0.000	-.000	-.000
167	2	-.000	-.029	-.001	-.002	.000	.000	0.000	0.000	-.000	.001
167	3	.018	.000	.017	-.002	.001	-.000	0.000	0.000	-.003	-.000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STATADLPIPE STRESS ANALYSIS
MODEL 1 X SHOCK

175	1	.002	.002	.013	.012	.000	-.000	0.000	0.000	-.000	-.000
175	2	-.001	-.070	.004	.004	.000	.001	0.000	0.000	-.000	.000
175	3	.001	.000	.009	.000	.003	-.000	0.000	0.000	-.003	-.000
190	1	.006	.001	.012	.014	.002	-.000	0.000	0.000	.001	-.000
190	2	-.002	-.115	.016	.018	.001	.001	0.000	0.000	.000	-.001
190	3	.064	-.001	-.002	.004	.006	-.000	0.000	0.000	.001	.000
205	1	.008	.000	.013	.017	.005	-.000	0.000	0.000	.001	-.000
205	2	-.001	-.101	.017	.014	.000	.000	0.000	0.000	.000	-.001
205	3	.063	-.001	-.003	.002	.004	-.000	0.000	0.000	.000	.000
220	1	.008	.000	.014	.010	.007	-.000	0.000	0.000	.001	.000
220	2	-.001	-.075	.015	.008	-.001	-.002	0.000	0.000	.000	.000
220	3	.063	-.001	-.007	-.002	-.001	.000	0.000	0.000	.000	.000
240	1	.004	.000	.011	.013	.008	-.000	0.000	0.000	.001	.000
240	2	-.004	-.039	.011	.005	-.001	-.002	0.000	0.000	.000	-.000
240	3	.063	-.001	-.007	-.002	-.001	.000	0.000	0.000	.000	.000
255	3	.063	-.001	-.007	-.002	-.001	.000	0.000	0.000	.000	.000

MODE AND FREQUENCY

		11	12	13	14	15	16	17	18	19	20
LUMP	CIR	21.273	23.561	27.611	28.677	31.573	32.317	38.573	41.836	47.390	48.929

MODAL DEFLECTIONS ARE LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC.
NINE MILE POWER STATADLPIPE STRESS ANALYSIS
MODEL 1 X SHOCK



LOADS
SHOCK

SC	NE	SEQ	POS	MODE 1 FREQUENCY			1.93			DX	DY	DZ	RX	RY	RZ
				FX (LB)	FY (LB)	FZ (LB)	FX (IN-LB)	MY (IN-LB)	HZ (IN-LB)						
1	1	5	BEG	18.	98.	-321.	9685.	-42453.	14390.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-18.	-94.	321.	-9740.	42504.	-14378.	-0.0000	-0.0000	0.0000	-0.0000	0.0000	-0.0000
1	2	15	END	-18.	-94.	321.	578.	46299.	-12691.	.0014	.0002	.0001	-0.0000	0.0000	0.0000
2	1	15	BEG	19.	94.	-321.	-578.	-46299.	12691.	.0014	.0002	.0001	-0.0000	0.0000	0.0000
2	1	20	END	-19.	-94.	321.	7321.	46299.	-12291.	.0015	.0002	.0002	-0.0000	0.0001	0.0000
3	1	20	BEG	21.	93.	5.	-6853.	14089.	12483.	.0015	.0002	.0002	-0.0000	0.0001	0.0000
3	1	25	END	-21.	-93.	-5.	6674.	-14089.	-11731.	.0017	.0002	.0002	-0.0000	0.0000	0.0000
3	2	30	END	-21.	-93.	-5.	6496.	-14089.	-10979.	.0018	.0002	.0006	-0.0000	0.0000	0.0000
4	1	30	BEG	23.	93.	6.	-6496.	14089.	10979.	.0018	.0002	.0006	-0.0000	0.0000	0.0000
4	1	35	END	-23.	-93.	-6.	6291.	-14089.	-10148.	.0019	.0002	.0008	-0.0000	0.0000	0.0000
4	2	40	END	-23.	-93.	-6.	6086.	-14089.	-9318.	.0019	.0002	.0009	-0.0000	0.0000	-0.0000
5	1	40	BEG	26.	94.	7.	-6086.	14089.	9318.	.0019	.0002	.0009	-0.0000	0.0000	-0.0000
5	1	45	END	-26.	-94.	-7.	5845.	-14089.	-8407.	.0018	.0002	.0009	-0.0000	0.0000	-0.0000
5	2	50	END	-26.	-94.	-7.	5603.	-14089.	-7495.	.0017	.0002	.0010	-0.0000	0.0000	-0.0000
6	1	50	BEG	29.	94.	9.	-5603.	14089.	7495.	.0017	.0002	.0010	-0.0000	0.0000	-0.0000
6	1	55	END	-29.	-94.	-9.	5088.	-14089.	-5771.	.0015	.0002	.0010	0.0000	0.0000	-0.0000
6	2	57	END	-29.	-94.	-9.	4531.	-14089.	-3903.	.0011	.0002	.0009	0.0000	0.0000	-0.0000
7	1	57	BEG	35.	95.	10.	-4531.	14089.	3903.	.0011	.0002	.0009	0.0000	0.0000	-0.0000
7	1	60	END	-35.	-95.	-10.	3976.	-14089.	-2506.	.0008	.0002	.0008	0.0000	0.0000	-0.0000
7	2	65	END	-35.	-95.	-10.	3420.	-14089.	-1108.	.0006	.0002	.0007	0.0000	0.0000	-0.0000
7	3	70	END	-35.	-95.	-10.	2948.	-14089.	78.	.0003	.0002	.0006	0.0000	0.0000	-0.0000
8	1	70	BEG	36.	96.	15.	-2948.	14089.	-78.	.0003	.0002	.0006	0.0000	0.0000	-0.0000
8	1	75	END	-36.	-96.	-15.	2939.	-14089.	100.	.0003	.0002	.0006	0.0000	0.0000	-0.0000
8	2	80	END	-36.	-96.	-15.	2736.	-14935.	5987.	-0.0000	0.0000	0.0000	-0.0000	0.0000	-0.0000

ADLPIPE PAGE 16

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	OX (IN)	OY (IN)	OZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-36.	-96.	-15.	-2743.	-14946.	6044.	-0.0000	0.0000	0.0000	-0.0000	0.0000	-0.0000
9	1	85	BEG	36.	96.	15.	-2743.	14946.	-6044.	-0.0000	0.0000	0.0000	-0.0000	0.0000	-0.0000
9	1	86	END	-36.	-96.	-15.	3037.	-15467.	8641.	-0.0000	0.0000	0.0000	-0.0000	0.0000	-0.0000
9	2	87	END	-36.	-96.	-15.	3826.	-15467.	6783.	0.0000	0.0000	-0.0000	0.0000	-0.0000	0.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 17

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 17

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-0.	1.	-326.	-469.	-60388.	-192.	.0015	.0002	.0002	-.0000	.0001	.0000
18	1	160	END	0.	-1.	326.	469.	50318.	157.	.0015	.0000	.0033	-.0000	.0001	.0000
18	2	165	END	0.	-1.	326.	469.	40248.	123.	.0015	-.0002	.0090	-.0000	.0002	.0000
18	3	167	END	0.	-1.	326.	469.	27070.	78.	.0015	-.0005	.0183	-.0000	.0002	.0000
19	1	167	BEG	2.	0.	-294.	-469.	-27070.	-78.	.0015	-.0005	.0183	-.0000	.0002	.0000
19	1	170	END	-2.	-0.	294.	469.	15296.	66.	.0015	-.0007	.0291	-.0000	.0003	.0000
19	2	175	END	-2.	-0.	294.	469.	3523.	53.	.0015	-.0010	.0411	-.0000	.0003	.0000
20	1	175	BEG	3.	-0.	-276.	-469.	-3523.	-53.	.0015	-.0010	.0411	-.0000	.0003	.0000
20	1	180	END	-3.	0.	276.	469.	-7539.	58.	.0015	-.0013	.0535	-.0000	.0003	.0000
20	2	185	END	-3.	0.	276.	469.	-12806.	60.	.0015	-.0014	.0592	-.0000	.0003	.0000
20	3	190	END	-3.	0.	276.	58.	-18539.	58.	.0060	-.0016	.0644	-.0000	.0002	.0000
21	1	190	BEG	5.	-1.	-256.	-58.	18539.	-58.	.0060	-.0016	.0644	-.0000	.0002	.0000
21	1	195	END	-5.	1.	256.	58.	-18537.	58.	.0060	-.0016	.0644	-.0000	.0002	.0000
21	2	200	END	-5.	1.	256.	46.	-18535.	52.	.0061	-.0016	.0644	-.0000	.0002	.0000
21	3	205	END	-5.	1.	256.	-324.	-13069.	38.	.0083	-.0013	.0630	.0000	.0000	.0000
22	1	205	BEG	7.	-1.	-242.	324.	13069.	-38.	.0083	-.0013	.0630	.0000	.0000	.0000
22	1	210	END	-7.	1.	242.	-324.	-10531.	28.	.0083	-.0011	.0627	.0000	.0000	.0000
22	2	215	END	-7.	1.	242.	-324.	-7994.	19.	.0083	-.0009	.0625	.0000	.0000	.0000
22	3	220	END	-7.	1.	242.	-305.	-2779.	-0.	.0081	-.0006	.0626	-.0000	-.0000	.0000
23	1	220	BEG	10.	-1.	-213.	305.	2779.	-0.	.0081	-.0006	.0626	-.0000	-.0000	.0000
23	1	225	END	-10.	1.	213.	-286.	-2610.	0.	.0077	-.0006	.0626	-.0000	-.0000	.0000
23	2	230	END	-10.	1.	213.	-242.	-2223.	0.	.0067	-.0005	.0626	-.0000	-.0000	.0000

ADLPIPE PAGE 18

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 18

 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 HX HY HZ DX DY DZ RX RY RZ
 (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-10.	1.	213.	-198.	-1837.	0.	.0056	-.0004	.0626	-.0000	-.0000	.0000
23	4	240	END	-10.	1.	213.	-154.	-1451.	0.	.0043	-.0003	.0626	-.0000	-.0000	.0000
24	1	240	BEG	13.	-1.	-175.	154.	1451.	0.	.0043	-.0003	.0626	-.0000	-.0000	.0000
24	1	245	END	-13.	1.	175.	-103.	-967.	0.	.0029	-.0002	.0626	-.0000	-.0000	.0000
24	2	250	END	-13.	1.	175.	-51.	-484.	0.	.0015	-.0001	.0626	-.0000	-.0000	.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	.0000	.0626	-.0000	-.0000	.0000
24	3	255	END	-13.	1.	175.	0.	0.	0.	0.0000	.0000	.0626	-.0000	-.0000	.0000

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 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 HX HY HZ DX DY DZ RX RY RZ
 (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)

ADLPIPE STRESS ANALYSIS

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MODE 1 FREQUENCY 1.93

NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	18.	94.	-321.	9685.	-42453.	14390.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	1.	0.	0.	0.	-0.	-0.	.0014	.0002	.0001	-.0000	.0000	.0000
3	20	2.	0.	0.	0.	-0.	-0.	.0015	.0002	.0002	-.0000	.0001	.0000
4	30	2.	0.	1.	0.	-0.	-0.	.0018	.0002	.0006	-.0000	.0000	.0000
5	40	2.	0.	1.	0.	0.	-0.	.0019	.0002	.0009	-.0000	.0000	-.0000
6	50	3.	0.	2.	0.	-0.	0.	.0017	.0002	.0010	-.0000	.0000	-.0000
7	57	7.	1.	5.	-0.	0.	0.	.0011	.0002	.0009	.0000	.0000	-.0000
8	70	0.	0.	1.	-0.	-0.	0.	.0003	.0002	.0006	.0000	.0000	-.0000
9	85	-0.	0.	0.	-0.	-0.	0.	-.0000	.0000	.0000	-.0000	.0000	-.0000
10	87	-36.	-96.	-15.	3626.	-15467.	6783.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	3.	-1.	32.	-0.	-0.	-0.	.0015	-.0005	.0183	-.0000	.0002	.0000
20	175	1.	-0.	18.	0.	-0.	0.	.0015	-.0010	.0411	-.0000	.0003	.0000
21	190	2.	-1.	20.	0.	0.	-0.	.0060	-.0016	.0677	-.0000	.0002	.0000
22	205	2.	-0.	14.	0.	-0.	-0.	.0083	-.0013	.0630	.0000	.0000	.0000
23	220	4.	-0.	29.	0.	0.	-0.	.0081	-.0006	.0626	-.0000	-.0000	.0000
24	240	3.	-0.	36.	0.	0.	0.	.0043	-.0003	.0626	-.0000	-.0000	.0000
25	255	-13.	1.	175.	0.	0.	0.	0.0000	.0000	.0626	-.0000	-.0000	.0000

ADLPIPE PAGE 20

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
MODE 1 FREQUENCY 1.93

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 21

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 21

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCKLOADS
SHOCK

SC	ME	SEQ	POS	MCDE FX (LB)	2 FREQUENCY FY (LB)	FZ (LB)	3.72 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	86.	125.	12.	-6000.	9012.	-36102.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-86.	-125.	-12.	5927.	-8963.	36118.	-0.0090	-0.0000	0.0000	0.0000	-0.0000	0.0000
1	2	15	END	-86.	-125.	-12.	-131.	-5285.	41166.	0.0010	0.0001	0.0001	-0.0000	0.0000	0.0000
2	1	15	BEG	89.	126.	12.	131.	5285.	-41166.	0.0010	0.0001	0.0001	-0.0000	0.0000	0.0000
2	1	20	END	-89.	-126.	-12.	-388.	-5285.	43037.	0.0020	0.0001	0.0001	-0.0000	0.0000	0.0000
3	1	20	BEG	114.	-501.	-1.	-2447.	1945.	73305.	0.0020	0.0001	0.0001	-0.0000	0.0000	0.0000
3	1	25	END	-114.	501.	1.	2466.	-1945.	-69262.	0.0035	0.0001	0.0002	-0.0000	0.0000	0.0000
3	2	30	END	-114.	501.	1.	2484.	-1945.	-65220.	0.0047	0.0001	0.0003	-0.0000	0.0000	0.0000
4	1	30	BEG	134.	-500.	1.	-2484.	1945.	65220.	0.0047	0.0001	0.0003	-0.0000	0.0000	0.0000
4	1	35	END	-134.	500.	-1.	2462.	-1945.	-60437.	0.0054	0.0001	0.0003	-0.0000	0.0000	0.0000
4	2	40	END	-134.	500.	-1.	2440.	-1945.	-55654.	0.0059	0.0001	0.0003	-0.0000	0.0000	0.0000
5	1	40	BEG	161.	-500.	2.	-2440.	1945.	55654.	0.0059	0.0001	0.0003	-0.0000	0.0000	0.0000
5	1	45	END	-161.	500.	-2.	2364.	-1945.	-49943.	0.0060	0.0002	0.0004	-0.0000	0.0000	-0.0000
5	2	50	END	-161.	500.	-2.	2288.	-1945.	-44232.	0.0058	0.0002	0.0004	-0.0000	0.0000	-0.0000
6	1	50	BEG	199.	-498.	5.	-2288.	1945.	44232.	0.0058	0.0002	0.0004	-0.0000	0.0000	-0.0000
6	1	55	END	-199.	498.	-5.	2009.	-1945.	-32266.	0.0049	0.0002	0.0004	0.0000	0.0000	-0.0000
6	2	57	END	-199.	498.	-5.	1707.	-1945.	-19305.	0.0035	0.0002	0.0003	0.0000	0.0000	-0.0000
7	1	57	BEG	279.	-494.	12.	-1707.	1945.	19305.	0.0035	0.0002	0.0003	0.0000	0.0000	-0.0000
7	1	60	END	-279.	494.	-12.	1239.	-1945.	-8241.	0.0026	0.0002	0.0003	0.0000	0.0000	-0.0000
7	2	65	END	-279.	494.	-12.	772.	-1945.	2822.	0.0015	0.0002	0.0002	0.0000	0.0000	-0.0000
7	3	70	END	-279.	494.	-12.	375.	-1945.	12217.	0.0007	0.0002	0.0002	0.0000	0.0000	-0.0000
8	1	70	BEG	283.	-493.	13.	-375.	1945.	-12217.	0.0007	0.0002	0.0002	0.0000	0.0000	-0.0000
8	1	75	END	-283.	493.	-13.	367.	-1945.	12367.	0.0007	0.0002	0.0002	0.0000	0.0000	-0.0000
8	2	80	END	-283.	493.	-13.	-2645.	-3918.	3066.	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK



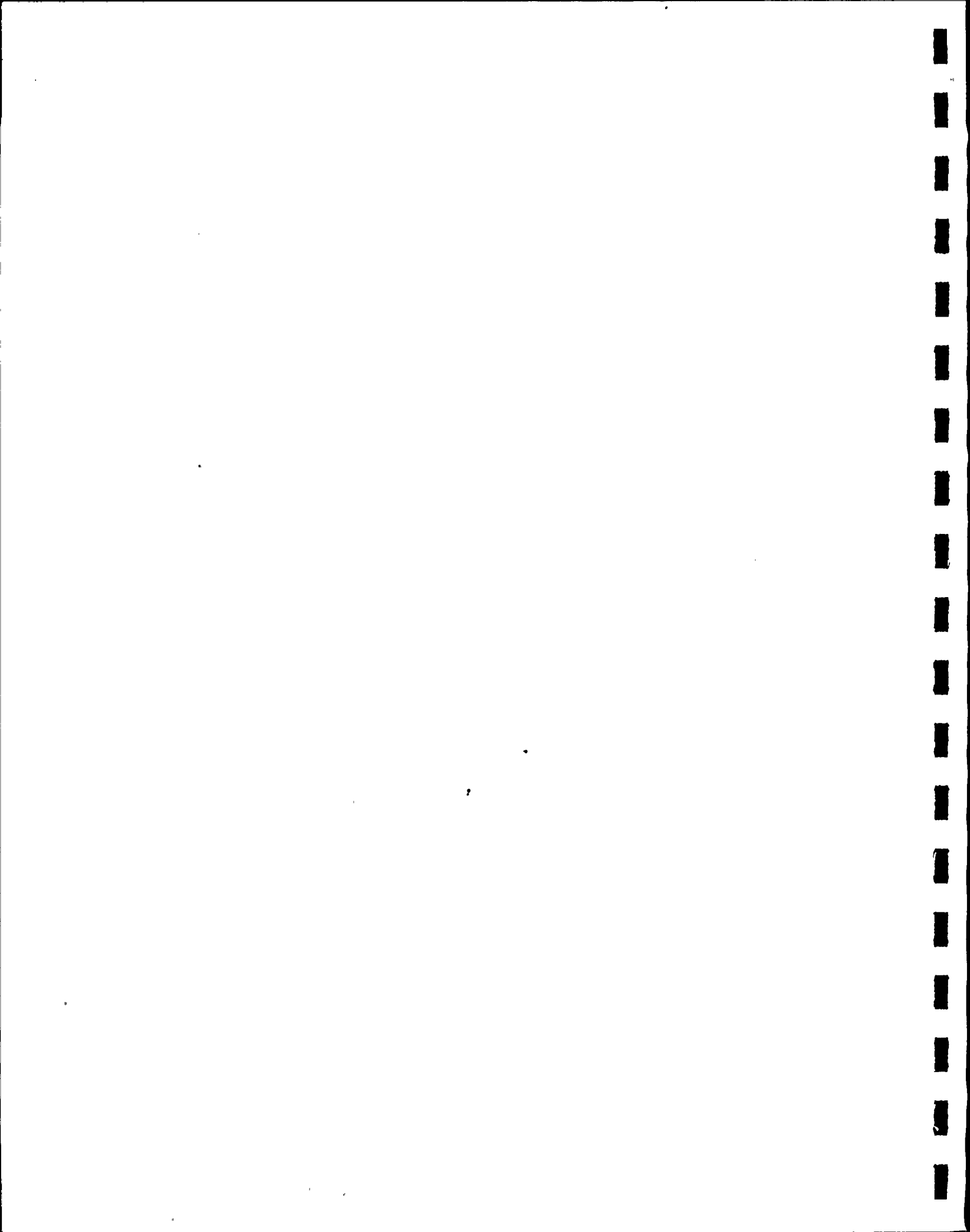
ADLPIPE PAGE 22

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	EY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-263.	493.	-13.	-2677.	-3944.	2772.	.0000	-.0000	.0000	.0000	.0000	.0000
9	1	85	BEG	264.	-494.	13.	2677.	3944.	-2772.	.0000	-.0000	.0000	.0000	.0000	.0000
9	1	86	END	-284.	494.	-13.	-4194.	-5171.	-10628.	.0000	-.0000	-.0000	.0000	.0000	.0000
9	2	87	END	-284.	494.	-13.	-3515.	-5171.	-25324.	-.0000	-.0000	.0000	.0000	.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 23

 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MX MY MZ DX DY DZ
 (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN)

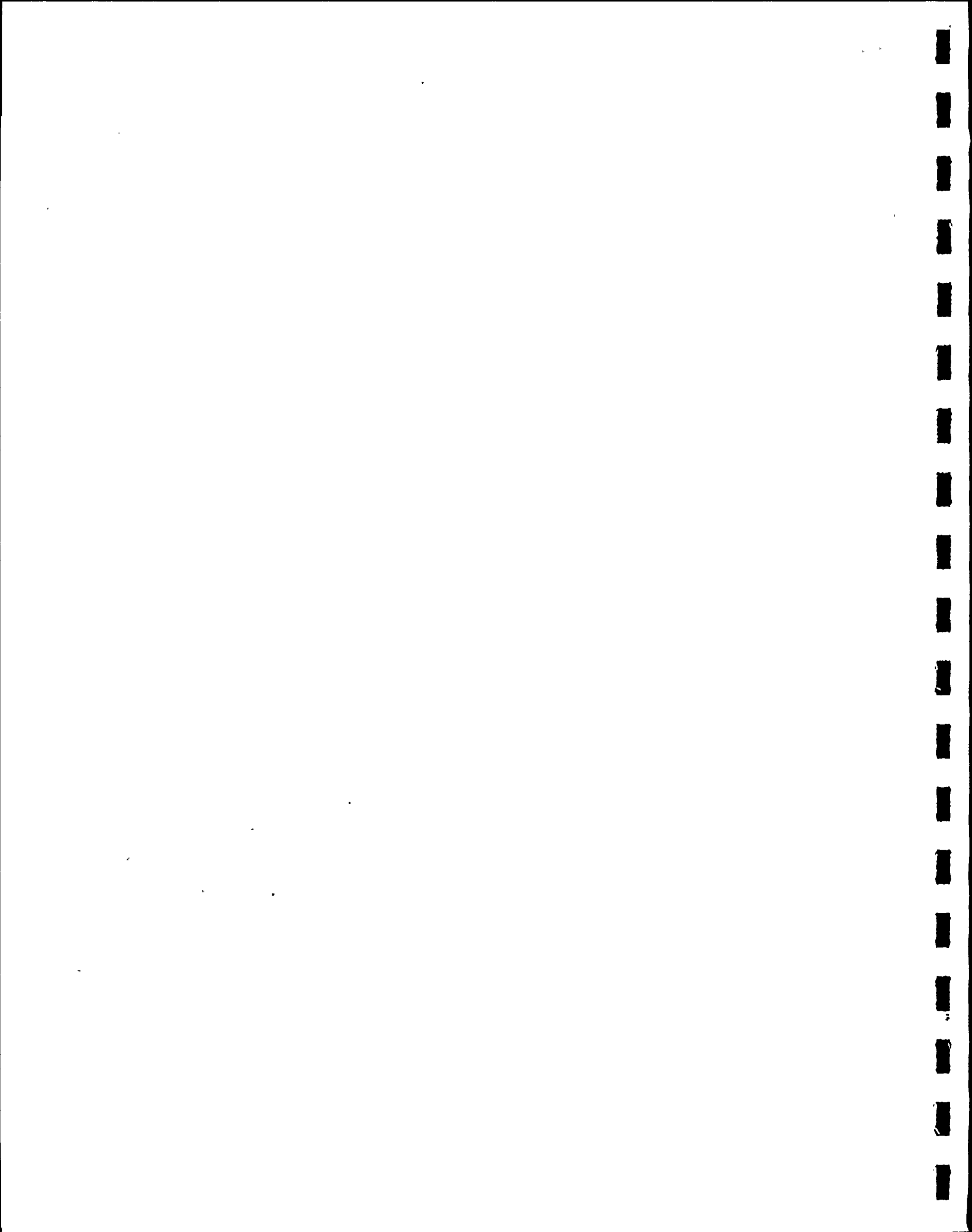
ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-17.	627.	13.	2835.	3339.	-116342.	.0020	.0001	.0001	-.0000	.0000	.0000
18	1	160	END	17.	-627.	-13.	-2835.	-2933.	96971.	.0020	-.0003	.0003	-.0000	.0000	.0002
18	2	165	END	17.	-627.	-13.	-2835.	-2526.	77601.	.0020	-.0136	.0004	-.0000	.0000	.0004
18	3	167	END	17.	-627.	-13.	-2835.	-1994.	52250.	.0020	-.0295	.0004	-.0000	-.0000	.0004
19	1	167	BEG	-4.	433.	16.	2835.	1994.	-52250.	.0020	-.0295	.0004	-.0000	-.0000	.0004
19	1	170	END	4.	-433.	-16.	-2835.	-1363.	34883.	.0020	-.0382	.0003	-.0000	-.0000	.0005
19	2	175	END	4.	-433.	-16.	-2835.	-732.	17516.	.0020	-.0698	.0000	-.0000	-.0000	.0006
20	1	175	BEG	-0.	321.	16.	2835.	732.	-17516.	.0020	-.0698	.0000	-.0000	-.0000	.0006
20	1	180	END	0.	-321.	-16.	-2835.	-100.	4656.	.0020	-.0930	-.0003	-.0000	-.0000	.0006
20	2	185	END	0.	-321.	-16.	-2835.	201.	-1470.	.0020	-.1042	-.0004	-.0000	-.0000	.0006
20	3	190	END	0.	-321.	-16.	-9529.	523.	-8204.	.0010	-.1150	-.0007	-.0001	-.0000	.0006
21	1	190	BEG	1.	185.	15.	9529.	-523.	8204.	.0010	-.1150	-.0007	-.0001	-.0000	.0006
21	1	195	END	-1.	-185.	-15.	-9593.	523.	-8204.	.0010	-.1150	-.0007	-.0001	-.0000	.0006
21	2	200	END	-1.	-185.	-15.	-9658.	524.	-8204.	.0010	-.1150	-.0007	-.0001	-.0000	.0006
21	3	205	END	-1.	-185.	-15.	-13521.	227.	-4310.	.0002	-.1012	-.0009	-.0001	.0000	.0005
22	1	205	BEG	1.	103.	14.	13521.	-227.	4310.	.0002	-.1012	-.0009	-.0001	.0000	.0005
22	1	210	END	-1.	-103.	-14.	-13521.	77.	-3233.	.0002	-.0956	-.0009	-.0001	.0000	.0005
22	2	215	END	-1.	-103.	-14.	-13521.	-72.	-2155.	.0002	-.0899	-.0009	-.0002	.0000	.0005
22	3	220	END	-1.	-103.	-14.	-15676.	-351.	-0.	.0002	-.0746	-.0010	-.0002	.0000	.0006
23	1	220	BEG	1.	-24.	13.	15676.	351.	-0.	.0002	-.0746	-.0010	-.0002	.0000	.0006
23	1	225	END	-1.	-24.	-13.	-15278.	-330.	0.	.0002	-.0707	-.0010	-.0002	.0000	.0006
23	2	230	END	-1.	-24.	-13.	-14368.	-282.	0.	.0002	-.0612	-.0010	-.0003	-.0000	.0006

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 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 24

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-1.	24.	-13.	-13459.	-234.	0.	.0002.	-.0506	-.0010	-.0003	-.0000	.0006
23	4	240	END	-1.	24.	-13.	-12549.	-186.	0.	.0002	-.0390	-.0010	-.0003	-.0000	.0006
24	1	240	BEG	2.	-112.	10.	12549.	186.	0.	.0002	-.0390	-.0010	-.0003	-.0000	.0006
24	1	245	END	-2.	112.	-10.	-8366.	-124.	0.	.0001	-.0265	-.0010	-.0003	-.0000	.0006
24	2	250	END	-2.	112.	-10.	-4183.	-62.	0.	.0001	-.0134	-.0010	-.0004	-.0000	.0006
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	.0006	-.0010	-.0004	-.0000	.0006
24	3	255	END	-2.	112.	-10.	0.	0.	0.	-.0000	.0006	-.0010	-.0004	-.0000	.0006

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MCCE 2 FREQUENCY 3.72

NET PT SEG		F _X (LB)	F _Y (LB)	F _Z (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS								
					R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	86.	125.	12.	-6000.	9012.	-36102.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	3.	0.	0.	0.	-0.	-0.	.0010	.0001	.0001	-.0000	.0000	.0000
3	20	8.	0.	0.	0.	-0.	-0.	.0020	.0001	.0001	-.0000	.0000	.0000
4	30	21.	1.	1.	0.	-0.	-0.	.0047	.0001	.0003	-.0000	.0000	.0000
5	40	26.	1.	2.	0.	0.	-0.	.0059	.0001	.0003	-.0000	.0000	.0000
6	50	39.	1.	3.	0.	-0.	0.	.0058	.0002	.0004	-.0000	.0000	-.0000
7	57	80.	4.	7.	-0.	0.	0.	.0035	.0002	.0003	.0000	.0000	-.0000
8	70	4.	1.	1.	-0.	-0.	0.	.0007	.0002	.0002	.0000	.0000	-.0000
9	85	1.	-1.	0.	-0.	-0.	-0.	.0000	-.0000	.0000	.0000	.0000	.0000
10	87	-284.	494.	-13.	-3515.	-5171.	-25384.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	3.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	13.	-194.	3.	-0.	-0.	-0.	.0020	-.0295	.0004	-.0000	-.0000	.0004
20	175	3.	-112.	0.	0.	-0.	-0.	.0020	-.0692	.0000	-.0000	-.0000	.0006
21	190	1.	-135.	-1.	-0.	-0.	-0.	.0010	<u>-.1150</u>	-.0007	-.0001	-.0000	.0006
22	205	0.	-83.	-1.	0.	-0.	-0.	.0002	-.1012	-.0009	-.0001	.0000	.0005
23	220	0.	-127.	-2.	0.	-0.	-0.	.0002	-.0746	-.0010	-.0002	.0000	.0006
24	240	0.	-88.	-2.	0.	0.	0.	.0002	-.0390	-.0010	-.0003	-.0000	.0006
25	255	-2.	112.	-10.	0.	0.	0.	-.0000	.0000	-.0010	-.0004	-.0000	.0006

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
MODE 2 FREQUENCY 3.72

NET PT SEC	F _X (LB)	F _Y (LB)	F _Z (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS								
				R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 27

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCKLOADS
SHOCK

SC	ME	SEQ	POS	MODE FX (LB)	3 FREQUENCY FY (LB)	FZ (LB)	7.61 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	OX (IN)	OY (IN)	OZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-3297.	-132.	-2625.	151031.	-119039.	-189561.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	3297.	132.	2625.	-150953.	117431.	189545.	.0000	.0000	.0000	-.0000	.0000	.0000
1	2	15	END	3297.	132.	2625.	-27011.	-3134.	39945.	.0092	.0057	.0074	-.0002	.0001	.0002
2	1	15	BEG	-3185.	-64.	-2535.	27011.	3134.	-39945.	.0092	.0057	.0074	-.0002	.0001	.0002
2	1	20	END	3185.	64.	2535.	26228.	-3134.	-26950.	.0133	.0057	.0124	-.0002	.0001	.0002
3	1	20	BEG	-2316.	260.	-2247.	-23300.	-30184.	-29487.	.0133	.0057	.0124	-.0002	.0001	-.0002
3	1	25	END	2316.	-260.	2247.	103253.	30184.	-52906.	.0201	.0057	.0206	-.0002	.0001	.0002
3	2	30	END	2316.	-260.	2247.	163206.	30184.	-135299.	.0266	.0057	.0282	-.0002	.0001	.0002
4	1	30	BEG	-1821.	366.	-1721.	-183206.	-30184.	135299.	.0266	.0057	.0282	-.0002	.0001	.0002
4	1	35	END	1821.	-366.	1721.	244448.	30184.	-200086.	.0323	.0057	.0348	-.0002	.0001	.0001
4	2	40	END	1821.	-366.	1721.	305689.	30184.	-264873.	.0368	.0057	.0400	-.0001	.0002	.0001
5	1	40	BEG	-1135.	471.	-977.	-305689.	-30184.	264873.	.0368	.0057	.0400	-.0001	.0002	.0001
5	1	45	END	1135.	-471.	977.	340445.	30184.	-305259.	.0398	.0057	.0433	-.0001	.0002	.0001
5	2	50	END	1135.	-471.	977.	375201.	30184.	-345646.	.0411	.0056	.0448	-.0000	.0002	.0000
6	1	50	BEG	24.	631.	286.	-375201.	-30184.	345646.	.0411	.0056	.0448	-.0000	.0002	.0000
6	1	55	END	-24.	-631.	-286.	358019.	30184.	-344211.	.0387	.0056	.0423	.0001	.0002	-.0001
6	2	57	END	-24.	-631.	-286.	339409.	30184.	-342657.	.0315	.0056	.0349	.0001	.0002	-.0001
7	1	57	BEG	3002.	1162.	3582.	-339409.	-30184.	342657.	.0315	.0056	.0349	.0001	.0002	-.0001
7	1	60	END	-3002.	-1162.	-3582.	197486.	30184.	-223721.	.0249	.0056	.0281	.0002	.0002	-.0002
7	2	65	END	-3002.	-1162.	-3582.	55523.	30184.	-104784.	.0167	.0056	.0200	.0002	.0002	-.0002
7	3	70	END	-3002.	-1162.	-3582.	-65012.	30184.	-3785.	.0092	.0056	.0127	.0002	.0002	-.0002
8	1	70	BEG	3223.	1296.	3889.	65012.	-30184.	3785.	.0092	.0056	.0127	.0002	.0002	-.0002
8	1	75	END	-3223.	-1296.	-3889.	-67345.	30184.	-1851.	.0090	.0056	.0125	.0002	.0002	-.0002
8	2	80	END	-3223.	-1296.	-3889.	-235959.	-159643.	201181.	-.0000	.0003	.0006	.0000	.0000	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 28

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

SC	ME	SEO	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-3223.	-1296.	-3889.	-235874.	-162166.	201952.	-0.0000	0.0003	0.0005	0.0000	0.0000	-0.0000
9	1	85	BEG	3220.	1319.	3935.	235874.	162166.	-201952.	-0.0000	0.0003	0.0005	0.0000	0.0000	-0.0000
9	1	86	END	-3220.	-1319.	-3935.	-231821.	-278813.	237744.	-0.0001	0.0006	-0.0001	0.0000	0.0000	-0.0000
9	2	87	END	-3220.	-1319.	-3935.	-27237.	-278813.	70309.	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	PX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-657.	-233.	-89.	-2928.	33318.	56237.	.0133	.0057	.0124	-.0002	.0001	.0002
18	1	160	END	657.	233.	89.	2928.	-36079.	-49237.	.0133	.0013	.0155	-.0002	.0001	.0001
18	2	165	END	657.	233.	89.	2928.	-38840.	-42038.	.0133	-.0005	.0166	-.0002	.0000	.0000
18	3	167	END	657.	233.	89.	2928.	-42453.	-32615.	.0133	-.0009	.0166	-.0002	-.0000	-.0000
19	1	167	BEG	-290.	-258.	366.	-2928.	42453.	32615.	.0133	-.0009	.0166	-.0002	-.0000	-.0000
19	1	170	END	290.	258.	-366.	2928.	-27702.	-22269.	.0133	.0005	.0142	-.0002	-.0001	-.0001
19	2	175	END	290.	258.	-366.	2928.	-12950.	-11923.	.0134	.0038	.0094	-.0002	-.0001	-.0001
20	1	175	BEG	-200.	-232.	431.	-2928.	12950.	11923.	.0134	.0038	.0094	-.0002	-.0001	-.0001
20	1	180	END	200.	232.	-431.	2928.	4327.	-2660.	.0134	.0081	.0035	-.0002	-.0001	-.0001
20	2	185	END	200.	232.	-431.	2928.	12557.	1841.	.0134	.0103	.0007	-.0002	-.0001	-.0001
20	3	190	END	200.	232.	-431.	6442.	17413.	7022.	.0124	.0160	-.0016	-.0001	-.0000	-.0001
21	1	190	BEG	-139.	-154.	423.	-8442.	-17413.	-7022.	.0124	.0160	-.0016	-.0001	-.0000	-.0001
21	1	195	END	139.	154.	-423.	8505.	17364.	7025.	.0124	.0161	-.0016	-.0001	-.0000	-.0001
21	2	200	END	139.	154.	-423.	6571.	17315.	7029.	.0124	.0161	-.0016	-.0001	-.0000	-.0001
21	3	205	END	139.	154.	-423.	12426.	5512.	4008.	.0133	.0170	-.0032	-.0001	.0001	-.0001
22	1	205	BEG	-94.	-95.	412.	-12426.	-5512.	-4008.	.0133	.0170	-.0032	-.0001	.0001	-.0001
22	1	210	END	94.	95.	-412.	12426.	1184.	3006.	.0133	.0162	-.0042	-.0001	.0001	-.0001
22	2	215	END	94.	95.	-412.	12426.	-3145.	2064.	.0133	.0154	-.0052	-.0001	.0001	-.0001
22	3	220	END	94.	95.	-412.	14430.	-13767.	0.	.0145	.0149	-.0068	-.0000	.0000	-.0001
23	1	220	BEG	10.	11.	364.	-14430.	13767.	0.	.0145	.0149	-.0068	-.0000	.0000	-.0001
23	1	225	END	-10.	-11.	-364.	14255.	-13611.	-0.	.0147	.0151	-.0068	-.0000	.0000	-.0001
23	2	230	END	-10.	-11.	-364.	13857.	-13255.	-0.	.0144	.0148	-.0068	.0000	-.0000	-.0001

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 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 30

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

SC	HE	SEG	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-10.	-11.	-364.	13459.	-12899.	-0.	.0131	.0136	-.0068	.0000	-.0000	-.0001
23	4	240	END	-10.	-11.	-364.	13061.	-12543.	-0.	.0109	.0113	-.0068	.0001	-.0001	-.0001
24	1	240	SEG	112.	117.	300.	-13061.	12543.	0.	.0109	.0113	-.0068	.0001	-.0001	-.0001
24	1	245	END	-112.	-117.	-300.	8707.	-8362.	0.	.0078	.0021	-.0068	.0001	-.0001	-.0001
24	2	250	END	-112.	-117.	-300.	4354.	-4181.	0.	.0040	.0042	-.0069	.0001	-.0001	-.0001
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	-.0000	-.0069	.0001	-.0001	-.0001
24	3	255	END	-112.	-117.	-300.	-0.	0.	0.	0.0000	-.0000	-.0069	.0001	-.0001	-.0001

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

MODEL 1 X SHCCK



NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	-3297.	-132.	-2025.	151031.	-119039.	-189561.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	111.	69.	90.	0.	-0.	-0.	.0092	.0057	.0074	-.0002	.0001	.0002
3	20	213.	91.	199.	0.	0.	-0.	.0133	.0057	.0124	-.0002	.0001	.0002
4	30	495.	106.	526.	0.	-0.	-0.	.0266	.0057	.0282	-.0002	.0001	.0002
5	40	686.	105.	744.	0.	0.	-0.	.0366	.0057	.0400	-.0001	.0002	.0001
6	50	1159.	159.	1263.	0.	-0.	-0.	.0411	.0056	.0448	-.0000	.0002	.0000
7	57	2978.	531.	3296.	-0.	0.	0.	.0315	.0056	.0349	.0001	.0002	-.0001
8	70	222.	135.	307.	-0.	-0.	0.	.0092	.0056	.0127	.0002	.0002	-.0002
9	85	-3.	23.	46.	-0.	-0.	0.	-.0000	.0003	.0005	.0000	.0000	-.0000
10	87	-3226.	-1319.	-3935.	-27237.	-278613.	70309.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	367.	-25.	457.	-0.	-0.	-0.	.0133	-.0009	.0166	-.0002	-.0000	-.0000
20	175	40.	26.	63.	-0.	0.	0.	.0134	.0038	.0094	-.0002	-.0001	-.0001
21	190	61.	79.	-8.	0.	0.	0.	.0124	.0160	-.0016	-.0001	-.0000	-.0001
22	205	46.	56.	-11.	-0.	-0.	0.	.0133	.0170	-.0032	-.0001	.0001	-.0001
23	220	103.	106.	-48.	0.	-0.	0.	.0145	.0149	-.0068	-.0000	.0000	-.0001
24	240	102.	106.	-64.	-0.	0.	-0.	.0109	.0113	-.0068	.0001	-.0001	-.0001
25	255	-112.	-117.	-300.	-0.	0.	0.	0.0000	-.0000	-.0069	.0001	-.0001	-.0001



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
MCDE 3 FREQUENCY 7.61

NET PT SEQ

FX
(LB)

FY
(LB)

FZ
(LB)

NETWORK POINT REACTIONS AND DEFLECTIONS

FX
(IN-LB)

MY
(IN-LB)

MZ
(IN-LB)

OX
(IN)

OY
(IN)

OZ
(IN)

RX
(RAD)

RY
(RAD)

RZ
(RAD)

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK



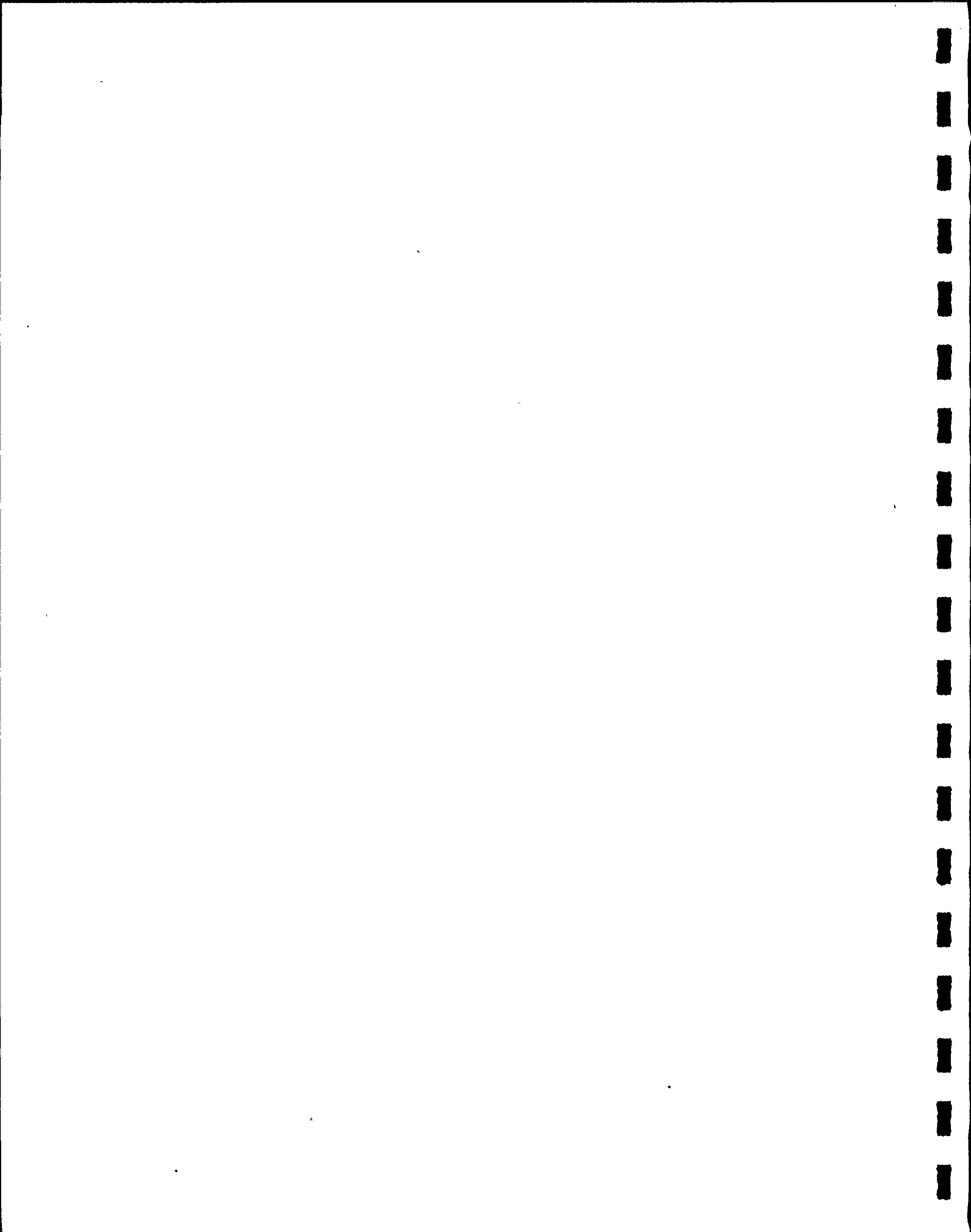
ADLPIPE PAGE 33

ARTHUR D. LITTLE INC, ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCKLOADS
SHOCK

SC	HE	SEG	POS	MODE FX (LB)	4 FREQUENCY FY (LB)	FZ (LB)	8.61 HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-3639.	-6254.	2803.	32035.	-93106.	-280617.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	3639.	6254.	-2803.	-28363.	90620.	279836.	.0000	.0000	-.0000	-.0000	.0000	.0000
1	2	15	END	3639.	6254.	-2803.	120773.	-95787.	57570.	.0081	.0002	-.0038	.0002	.0001	.0002
2	1	15	BEG	-3514.	-6250.	2745.	-120773.	95787.	-57570.	.0081	.0002	-.0038	.0002	.0001	.0002
2	1	20	END	3514.	6250.	-2745.	63130.	-95787.	-16228.	.0118	.0003	-.0074	.0002	.0001	.0002
3	1	20	BEG	-2409.	-6071.	2427.	-71863.	74654.	-41410.	.0118	.0003	-.0074	.0002	.0001	.0002
3	1	25	END	2409.	6071.	-2427.	-14487.	-74654.	-44302.	.0180	.0004	-.0137	.0002	.0001	.0002
3	2	30	END	2409.	6071.	-2427.	-100837.	-74654.	-130015.	.0239	.0004	-.0199	.0002	.0001	.0002
4	1	30	BEG	-1839.	-6060.	1951.	100837.	74654.	130015.	.0239	.0004	-.0199	.0002	.0001	.0002
4	1	35	END	1839.	6060.	-1951.	-170263.	-74654.	-195447.	.0291	.0005	-.0256	.0001	.0000	.0001
4	2	40	END	1839.	6060.	-1951.	-239639.	-74654.	-260879.	.0331	.0006	-.0303	.0001	.0000	.0001
5	1	40	BEG	-1049.	-6045.	1229.	239689.	74654.	260879.	.0331	.0006	-.0303	.0001	.0000	.0001
5	1	45	END	1049.	6045.	-1229.	-283413.	-74654.	-298192.	.0357	.0007	-.0336	.0001	.0000	.0000
5	2	50	END	1049.	6045.	-1229.	-327138.	-74654.	-335505.	.0365	.0008	-.0352	.0000	-.0000	-.0000
6	1	50	BEG	269.	-6016.	-44.	327138.	74654.	335505.	.0365	.0008	-.0352	.0000	-.0000	-.0000
6	1	55	END	-269.	6016.	44.	-324525.	-74654.	-319341.	.0335	.0009	-.0337	-.0001	-.0000	-.0001
6	2	57	END	-269.	6016.	44.	-321695.	-74654.	-301832.	.0260	.0010	-.0278	-.0001	-.0000	-.0001
7	1	57	BEG	3418.	-5892.	-3408.	321695.	74654.	301832.	.0260	.0010	-.0278	-.0001	-.0000	-.0001
7	1	60	END	-3418.	5892.	3408.	-186640.	-74654.	-166388.	.0195	.0011	-.0221	-.0002	-.0001	-.0002
7	2	65	END	-3418.	5892.	3408.	-51626.	-74654.	-30944.	.0117	.0012	-.0150	-.0002	-.0001	-.0002
7	3	70	END	-3418.	5892.	3408.	63043.	-74654.	84073.	.0050	.0013	-.0087	-.0002	-.0001	-.0002
8	1	70	BEG	3572.	-5852.	-3678.	-63043.	74654.	-84073.	.0050	.0013	-.0087	-.0002	-.0001	-.0002
8	1	75	END	-3572.	5852.	3678.	65250.	-74654.	86216.	.0048	.0013	-.0086	-.0002	-.0001	-.0002
8	2	80	END	-3572.	5852.	3678.	201933.	72268.	-14805.	.0004	-.0005	-.0004	-.0000	-.0000	.0000

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ARTHUR D. LITTLE INC, ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK



ADLPIPE PAGE 34

 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 HX HY HZ DX DY DZ RX RY RZ
 (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-3572.	5852.	3678.	201550.	74220.	-18284.	.0004	-.0004	-.0003	-.0000	-.0000	.0000
9	1	85	BEG	3616.	-5901.	-3716.	-201550.	-74220.	18284.	.0004	-.0004	-.0003	-.0000	-.0000	.0000
9	1	86	END	-3616.	5901.	3716.	183422.	163925.	-178391.	.0004	-.0000	.0000	-.0000	-.0000	.0000
9	2	87	END	-3616.	5901.	3716.	-9778.	163925.	-366427.	-.0000	-.0000	-.0000	-.0000	-.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 35

ARTHUR D. LITTLE INC.
NINE MILE POKER STAT MODEL 1 X SHOCK
HX MY HZ DX DY DZ RX RY RZ
(IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)

SC	HE	SEG	PDS	FY (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-863.	-174.	167.	8732.	21133.	57638.	.0118	.0003	-.0074	.0002	.0001	.0002
18	1	160	END	863.	174.	-167.	-8732.	-15978.	-52250.	.0118	-.0035	-.0051	.0002	.0001	.0001
18	2	165	END	863.	174.	-167.	-8732.	-10824.	-46861.	.0118	-.0046	-.0036	.0001	.0000	-.0000
18	3	167	END	863.	174.	-167.	-8732.	-4079.	-39809.	.0118	-.0038	-.0021	.0001	.0000	-.0000
19	1	167	BEG	-447.	-308.	92.	8732.	4079.	39809.	.0118	-.0038	-.0021	.0001	.0000	-.0000
19	1	170	END	447.	308.	-92.	-8732.	-378.	-27455.	.0119	-.0008	-.0009	.0001	.0000	-.0001
19	2	175	END	447.	308.	-92.	-8732.	3323.	-15100.	.0119	.0045	.0003	.0001	.0000	-.0002
20	1	175	BEG	-344.	-269.	95.	8732.	-3323.	15100.	.0119	.0045	.0003	.0001	.0000	-.0002
20	1	180	END	344.	269.	-95.	-8732.	7117.	-4296.	.0119	.0111	.0017	.0001	.0000	-.0002
20	2	185	END	344.	269.	-95.	-8732.	8923.	847.	.0119	.0144	.0026	.0000	.0001	-.0002
20	3	190	END	344.	269.	-95.	-2949.	3697.	7018.	.0141	.0175	.0043	.0000	.0001	-.0002
21	1	190	BEG	-255.	-159.	121.	2949.	-3697.	-7018.	.0141	.0175	.0043	.0000	.0001	-.0002
21	1	195	END	255.	159.	-121.	-2691.	3600.	7025.	.0142	.0175	.0043	.0000	.0001	-.0002
21	2	200	END	255.	159.	-121.	-2831.	3518.	7031.	.0142	.0175	.0043	.0000	.0001	-.0002
21	3	205	END	255.	159.	-121.	683.	-4380.	4073.	.0169	.0142	.0019	.0000	.0001	-.0001
22	1	205	BEG	-181.	-97.	130.	-683.	4380.	-4073.	.0169	.0142	.0019	.0000	.0001	-.0001
22	1	210	END	181.	97.	-130.	683.	-5744.	3055.	.0169	.0128	.0009	.0000	.0001	-.0001
22	2	215	END	181.	97.	-130.	683.	-7108.	2036.	.0169	.0114	-.0002	.0000	.0001	-.0001
22	3	220	END	181.	97.	-130.	2719.	-13646.	0.	.0179	.0085	-.0017	.0000	.0000	-.0001
23	1	220	BEG	-18.	-19.	115.	-2719.	13646.	0.	.0179	.0085	-.0017	.0000	.0000	-.0001
23	1	225	END	18.	19.	-115.	3038.	-13944.	-0.	.0180	.0083	-.0017	.0000	.0000	-.0001
23	2	230	END	18.	19.	-115.	3765.	-14626.	-0.	.0176	.0077	-.0017	.0000	-.0000	-.0001

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ARTHUR D. LITTLE INC.
NINE MILE POKER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 36

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

SC ME SEG POS

FX
(LB)FY
(LB)FZ
(LB)

NINE MILE POWER STAT

MODEL 1

X SHOCK

MX
(IN-LB)MY
(IN-LB)MZ
(IN-LB)DX
(IN)DY
(IN)DZ
(IN)RX
(RAD)RY
(RAD)RZ
(RAD)

23	3	235	END	18.	19.	-115.	4493.	-15307.	-0.	.0160	.0067	-.0017	.0000	-.0001	-.0001
23	4	240	END	18.	19.	-115.	5220.	-15989.	-0.	.0134	.0055	-.0017	.0000	-.0001	-.0001
24	1	240	BEG	143.	47.	95.	-5220.	15989.	0.	.0134	.0055	-.0017	.0000	-.0001	-.0001
24	1	245	END	-143.	-47.	-95.	3480.	-10659.	0.	.0096	.0039	-.0017	.0000	-.0001	-.0001
24	2	250	END	-143.	-47.	-95.	1740.	-5330.	0.	.0050	.0020	-.0017	.0001	-.0001	-.0001
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0017	.0001	-.0001	-.0001
24	3	255	END	-143.	-47.	-95.	-0.	0.	0.	-.0000	-.0000	-.0017	.0001	-.0001	-.0001

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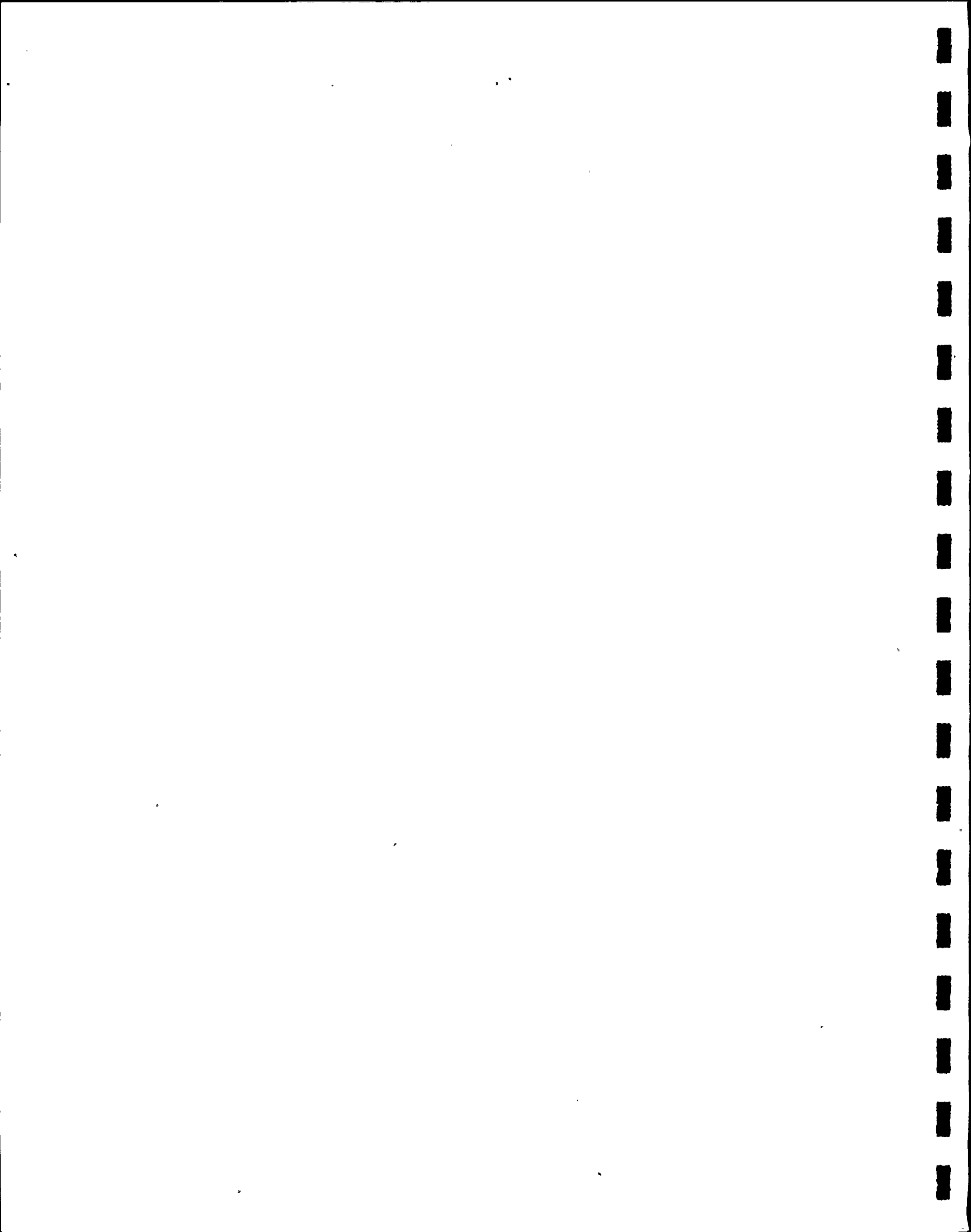
ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT

MODEL 1

X SHOCK



NET PT SEC			NETWORK POINT REACTIONS AND DEFLECTIONS											
			F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5		-3639.	-6254.	2803.	32035.	-93106.	-280617.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		125.	3.	-58.	-0.	-0.	-0.	.0081	.0002	-.0038	.0002	.0001	.0002
3	20		242.	5.	-151.	-0.	0.	-0.	.0118	.0003	-.0074	.0002	.0001	.0002
4	30		570.	11.	-476.	-0.	0.	-0.	.0239	.0004	-.0199	.0002	.0001	.0002
5	40		740.	15.	-722.	-0.	-0.	-0.	.0331	.0006	-.0303	.0001	.0000	.0001
6	50		1318.	29.	-1272.	-0.	0.	0.	.0365	.0008	-.0352	.0000	-.0000	-.0000
7	57		3149.	124.	-3364.	0.	-0.	0.	.0260	.0010	-.0278	-.0001	-.0000	-.0001
8	70		154.	40.	-270.	0.	0.	0.	.0050	.0013	-.0087	-.0002	-.0001	-.0002
9	85		84.	-49.	-38.	0.	0.	-0.	.0004	-.0004	-.0003	-.0000	-.0000	.0000
10	87		-3616.	5901.	3716.	-9778.	163925.	-366427.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167		417.	-134.	-75.	0.	-0.	-0.	.0118	-.0038	-.0021	.0001	.0000	-.0000
20	175		102.	39.	2.	0.	-0.	0.	.0119	.0045	.0003	.0001	.0000	-.0002
21	190		89.	110.	27.	0.	0.	0.	.0141	.0175	.0043	.0000	.0001	-.0002
22	205		74.	62.	8.	-0.	-0.	0.	.0169	.0142	.0019	.0000	.0001	-.0001
23	220		163.	77.	-15.	-0.	-0.	0.	.0179	.0085	-.0017	.0000	.0000	-.0001
24	240		161.	66.	-20.	-0.	0.	-0.	.0134	.0055	-.0017	.0000	-.0001	-.0001
25	255		-143.	-47.	-95.	-0.	0.	0.	-.0000	-.0000	-.0017	.0001	-.0001	-.0001

ADLPIPE PAGE 38

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
MCDE 4 FREQUENCY 8.61

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS								
				RX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)

ADLPIPE PAGE 39

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

LOADS
SHOCK

SC	ME	SEQ	POS	MODE FX (LB)	5 FREQUENCY FY (LB)	FZ (LB)	11.59 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-137.	135.	-43.	-2857.	-8627.	1138.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	137.	-135.	43.	2777.	8552.	-1121.	.0000	-.0000	-.0900	.0000	.0000	-.0000
1	2	15	END	137.	-135.	43.	-1249.	2941.	-6002.	.0002	-.0000	-.0001	.0000	.0000	-.0000
2	1	15	BEG	-131.	134.	-45.	1249.	-2941.	6002.	.0002	-.0000	-.0001	.0000	.0000	-.0000
2	1	20	END	131.	-134.	45.	-311.	2941.	-8751.	.0002	-.0000	-.0001	.0000	.0000	-.0000
3	1	20	BEG	94.	127.	1.	589.	1918.	9292.	.0002	-.0000	-.0001	.0000	.0000	-.0000
3	1	25	END	-94.	-127.	-1.	-589.	-1918.	-5961.	.0000	-.0000	-.0001	-.0000	.0000	-.0000
3	2	30	END	-94.	-127.	-1.	-630.	-1918.	-2630.	-.0001	-.0000	-.0001	-.0000	.0000	-.0000
4	1	30	BEG	89.	125.	-2.	630.	1918.	2630.	-.0001	-.0000	-.0001	-.0000	.0000	-.0000
4	1	35	END	-89.	-125.	2.	-557.	-1918.	546.	-.0003	-.0001	-.0001	-.0000	.0000	-.0000
4	2	40	END	-89.	-125.	2.	-485.	-1918.	3723.	-.0004	-.0001	-.0001	-.0000	.0000	-.0000
5	1	40	BEG	71.	123.	-4.	485.	1918.	-3723.	-.0004	-.0001	-.0001	-.0000	.0000	-.0000
5	1	45	END	-71.	-123.	4.	-325.	-1918.	6245.	-.0006	-.0001	-.0000	-.0000	.0000	-.0000
5	2	50	END	-71.	-123.	4.	-166.	-1918.	8768.	-.0007	-.0001	-.0000	-.0000	.0000	-.0000
6	1	50	BEG	27.	119.	-6.	166.	1918.	-8768.	-.0007	-.0001	-.0000	-.0000	.0000	-.0000
6	1	55	END	-27.	-119.	6.	215.	-1918.	10401.	-.0007	-.0001	-.0000	-.0000	.0000	.0000
6	2	57	END	-27.	-119.	6.	627.	-1918.	12171.	-.0006	-.0001	.0000	-.0000	.0000	.0000
7	1	57	BEG	-114.	105.	-1.	-627.	1918.	-12171.	-.0006	-.0001	.0000	-.0000	.0000	.0000
7	1	60	END	114.	-105.	1.	670.	-1918.	7658.	-.0005	-.0001	.0000	-.0000	.0000	.0000
7	2	65	END	114.	-105.	1.	713.	-1918.	3145.	-.0003	-.0001	.0000	-.0000	.0000	.0000
7	3	70	END	114.	-105.	1.	749.	-1918.	-688.	-.0002	-.0001	.0000	-.0000	.0000	.0000
8	1	70	BEG	-123.	102.	1.	-749.	1918.	688.	-.0002	-.0001	.0000	-.0000	.0000	.0000
8	1	75	END	123.	-102.	-1.	749.	-1918.	-762.	-.0002	-.0001	.0000	-.0000	.0000	.0000
8	2	80	END	123.	-102.	-1.	1182.	-1379.	-1754.	-.0000	.0000	.0000	-.0000	.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FY (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	123.	-102.	-1.	1169.	-1371.	-1694.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	85	BEG	-125.	103.	2.	-1189.	1371.	1694.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	86	END	125.	-103.	-2.	1505.	-1051.	1103.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	2	87	END	125.	-103.	-2.	1626.	-1051.	7592.	.0000	.0000	-.0000	-.0000	-.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 41

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

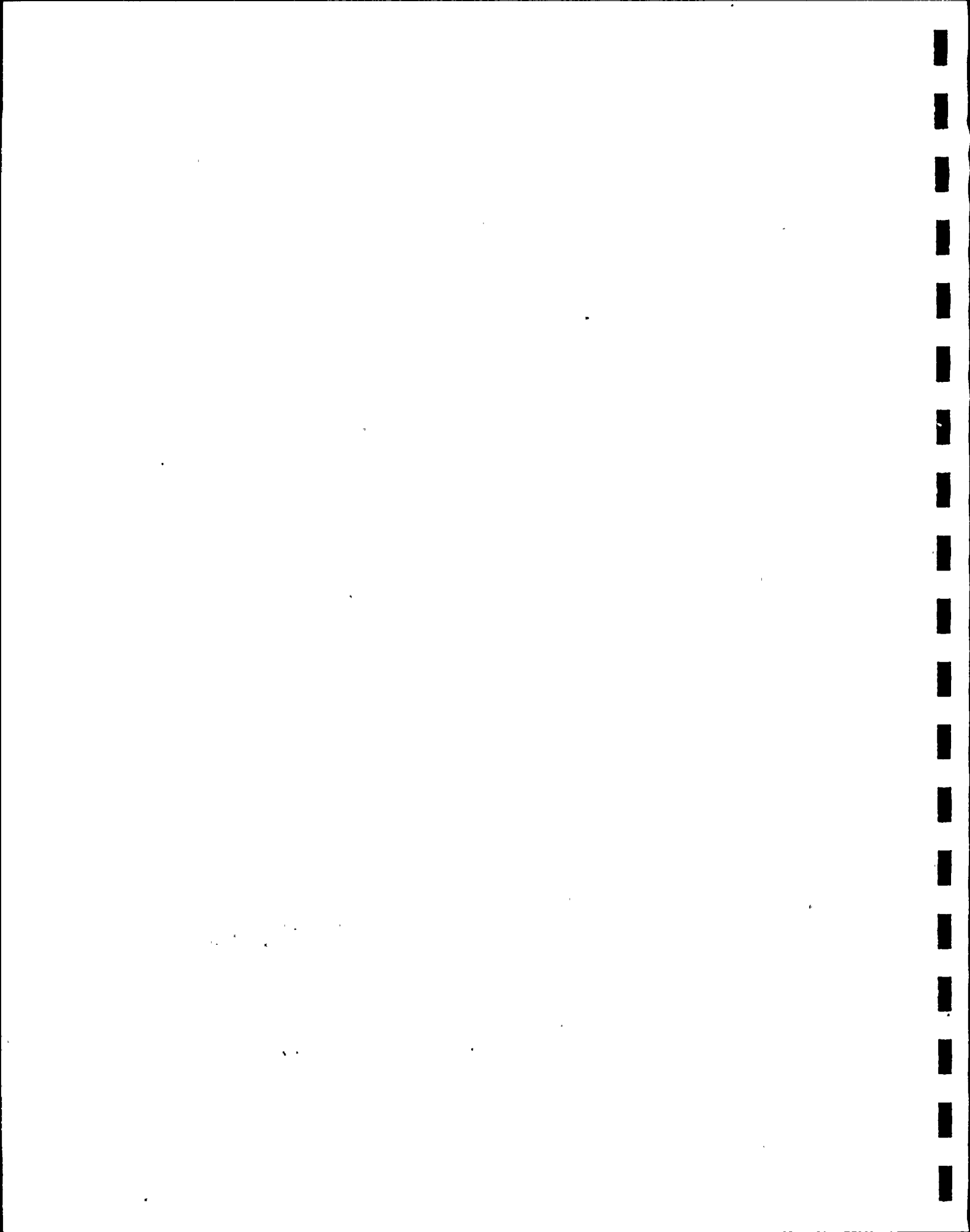
ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-218.	5.	-49.	-238.	-4859.	-541.	.0002	-.0000	-.0001	.0000	.0000	-.0000
18	1	160	END	218.	-5.	49.	238.	3355.	388.	.0002	.0000	.0002	.0000	.0000	-.0000
18	2	165	END	218.	-5.	49.	238.	1852.	235.	.0002	.0001	.0007	.0000	.0000	-.0000
18	3	167	END	218.	-5.	49.	238.	-116.	35.	.0002	.0001	.0014	.0000	.0000	-.0000
19	1	167	BEG	-207.	11.	43.	-238.	116.	-35.	.0002	.0001	.0014	.0000	.0000	-.0000
19	1	170	END	207.	-11.	-43.	238.	1593.	-410.	.0002	.0001	.0022	.0000	.0000	-.0000
19	2	175	END	207.	-11.	-43.	238.	3302.	-855.	.0002	.0002	.0030	.0000	.0000	-.0000
20	1	175	BEG	-204.	14.	90.	-238.	-3302.	855.	.0002	.0002	.0030	.0000	.0000	-.0000
20	1	180	END	204.	-14.	-90.	238.	6898.	-1435.	.0002	.0004	.0042	.0000	.0000	-.0000
20	2	185	END	204.	-14.	-90.	238.	8612.	-1711.	.0002	.0005	.0049	.0000	.0000	-.0000
20	3	190	END	204.	-14.	-90.	69.	6231.	-1711.	.0021	.0007	.0064	.0000	.0001	-.0000
21	1	190	BEG	-180.	22.	162.	-69.	-6231.	1711.	.0021	.0007	.0064	.0000	.0001	-.0000
21	1	195	END	180.	-22.	-162.	66.	6168.	-1706.	.0021	.0007	.0064	.0000	.0001	-.0000
21	2	200	END	180.	-22.	-162.	62.	6105.	-1702.	.0022	.0007	.0064	.0000	.0001	-.0000
21	3	205	END	180.	-22.	-162.	-156.	-1066.	-970.	.0048	.0001	.0036	.0000	.0001	-.0000
22	1	205	BEG	-142.	23.	191.	156.	1066.	970.	.0048	.0001	.0036	.0000	.0001	-.0000
22	1	210	END	142.	-23.	-191.	-156.	-3073.	-728.	.0048	-.0001	.0023	.0000	.0001	-.0000
22	2	215	END	142.	-23.	-191.	-156.	-5080.	-485.	.0048	-.0002	.0009	.0000	.0001	-.0000
22	3	220	END	142.	-23.	-191.	-641.	-12070.	0.	.0066	-.0010	-.0013	.0000	.0001	-.0000
23	1	220	BEG	-32.	8.	169.	641.	12070.	0.	.0066	-.0010	-.0013	.0000	.0001	-.0000
23	1	225	END	32.	-8.	-169.	-746.	-12592.	-0.	.0075	-.0010	-.0013	.0000	.0000	-.0000
23	2	230	END	32.	-8.	-169.	-985.	-13784.	-0.	.0087	-.0011	-.0013	-.0000	.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 42

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	EY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	32.	-6.	-169.	-1224.	-14976.	-0.	.0090	-.0010	-.0014	-.0000	-.0000	-.0000
23	4	240	END	32.	-6.	-169.	-1463.	-16168.	-0.	.0081	-.0009	-.0014	-.0000	-.0000	-.0000
24	1	240	BEG	144.	-13.	139.	1463.	16168.	0.	.0081	-.0009	-.0014	-.0000	-.0000	-.0000
24	1	245	END	-144.	13.	-139.	-976.	-10778.	0.	.0061	-.0007	-.0014	-.0000	-.0001	-.0000
24	2	250	END	-144.	13.	-139.	-488.	-5389.	0.	.0032	-.0003	-.0014	-.0000	-.0001	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	.0000	-.0014	-.0000	-.0001	-.0000
24	3	255	END	-144.	13.	-139.	0.	0.	0.	-.0000	.0000	-.0014	-.0000	-.0001	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MCDE 5 FREQUENCY 11.59

NET	PT	SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS											
			FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5		-137.	135.	-43.	-2857.	-8627.	1138.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		6.	-1.	-2.	-0.	-0.	-0.	.0002	-.0000	-.0001	.0000	.0000	-.0000
3	20		6.	-2.	-3.	0.	-0.	0.	.0002	-.0000	-.0001	.0000	.0000	-.0000
4	30		-4.	-2.	-3.	0.	-0.	0.	-.0001	-.0000	-.0001	-.0000	.0000	-.0000
5	40		-18.	-2.	-2.	0.	0.	0.	-.0004	-.0001	-.0001	-.0000	.0000	-.0000
6	50		-44.	-4.	-2.	0.	-0.	0.	-.0007	-.0001	-.0000	-.0000	.0000	-.0000
7	57		-181.	-13.	5.	0.	-0.	-0.	-.0006	-.0001	.0000	-.0000	.0000	.0000
8	70		-9.	-4.	3.	-0.	-0.	-0.	-.0002	-.0001	.0000	-.0000	.0000	.0000
9	85		-2.	1.	1.	0.	0.	0.	-.0000	.0000	.0000	-.0000	.0000	-.0000
10	87		125.	-103.	-2.	1626.	-1051.	7592.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167		12.	6.	91.	0.	-0.	0.	.0002	.0001	.0014	.0000	.0000	-.0000
20	175		3.	3.	47.	0.	-0.	0.	.0002	.0002	.0030	.0000	.0000	-.0000
21	190		24.	8.	72.	-0.	-0.	0.	.0021	.0007	.0064	.0000	.0001	-.0000
22	205		38.	1.	29.	-0.	-0.	0.	.0048	.0001	.0036	.0000	.0001	-.0000
23	220		110.	-17.	-22.	-0.	-0.	0.	.0066	-.0010	-.0013	.0000	.0001	-.0000
24	240		176.	-19.	-30.	0.	0.	-0.	.0081	-.0009	-.0014	-.0000	-.0000	-.0000
25	255		-144.	13.	-139.	0.	0.	0.	-.0000	.0000	-.0014	-.0000	-.0001	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
PCCE 5 FREQUENCY 11.59

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS										
	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 45

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

LOADS
SHOCK

SC	ME	SEQ	POS	MODE FX (LB)	6 FREQUENCY FY (LB)	FZ (LB)	13.07 MX (IN-LB)	MY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-5.	-22.	-1.	598.	-51.	-179.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	5.	22.	1.	-585.	48.	177.	.0000	.0000	-.0000	-.0000	.0000	.0000
1	2	15	END	5.	22.	1.	411.	-172.	-260.	-.0000	.0000	.0000	.0000	-.0000	-.0000
2	1	15	BEG	-5.	-22.	-0.	-411.	172.	260.	-.0000	.0000	.0000	.0000	-.0000	-.0000
2	1	20	END	5.	22.	0.	422.	-172.	-368.	-.0000	.0000	.0000	.0000	-.0000	-.0000
3	1	20	BEG	-9.	-5.	-3.	505.	-89.	-1328.	-.0000	.0000	.0000	.0000	-.0000	-.0000
3	1	25	END	9.	5.	3.	-391.	89.	1018.	-.0000	.0000	.0000	.0000	-.0000	.0000
3	2	30	END	9.	5.	3.	-278.	89.	708.	-.0000	.0000	.0000	-.0000	-.0000	.0000
4	1	30	BEG	-9.	-5.	-3.	278.	-89.	-708.	-.0000	.0000	.0000	-.0000	-.0000	.0000
4	1	35	END	9.	5.	3.	-170.	89.	396.	.0000	.0000	.0000	-.0000	-.0000	.0000
4	2	40	END	9.	5.	3.	-63.	89.	84.	.0000	.0000	.0000	-.0000	-.0000	.0000
5	1	40	BEG	-8.	-5.	-3.	63.	-89.	-84.	.0000	.0000	.0000	-.0000	-.0000	.0000
5	1	45	END	8.	5.	3.	30.	89.	-195.	.0000	.0000	.0000	-.0000	-.0000	.0000
5	2	50	END	8.	5.	3.	123.	89.	-473.	.0000	.0000	.0000	-.0000	.0000	.0000
6	1	50	BEG	-5.	-3.	-2.	-123.	-89.	473.	.0000	.0000	.0000	-.0000	.0000	.0000
6	1	55	END	5.	3.	2.	216.	89.	-755.	.0000	.0000	.0000	-.0000	.0000	.0000
6	2	57	END	5.	3.	2.	316.	89.	-1061.	.0000	.0000	.0000	.0000	.0000	-.0000
7	1	57	BEG	8.	-0.	3.	-316.	-89.	1061.	.0000	.0000	.0000	.0000	.0000	-.0000
7	1	60	END	-8.	0.	-3.	199.	89.	-727.	.0000	.0000	.0000	.0000	.0000	-.0000
7	2	65	END	-8.	0.	-3.	93.	89.	-393.	.0000	.0000	.0000	.0000	.0000	-.0000
7	3	70	END	-8.	0.	-3.	-16.	89.	-110.	.0000	.0000	.0000	.0000	.0000	-.0000
8	1	70	BEG	10.	1.	3.	16.	-89.	110.	.0000	.0000	.0000	.0000	.0000	-.0000
8	1	75	END	-10.	-1.	-3.	-18.	89.	-104.	.0000	.0000	.0000	.0000	.0000	-.0000
8	2	80	END	-10.	-1.	-3.	-172.	-114.	355.	.0000	.0000	.0000	.0000	.0000	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	FX (LB)	EY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-10.	-1.	-3.	-172.	-117.	355.	.0000	.0000	.0000	.0000	.0000	-.0000
9	1	85	BEG	10.	1.	4.	172.	117.	-355.	.0000	.0000	.0000	.0000	.0000	-.0000
9	1	86	END	-10.	-1.	-4.	-170.	-244.	375.	.0000	.0000	.0000	.0000	.0000	-.0000
9	2	87	END	-10.	-1.	-4.	12.	-244.	-126.	0.0000	.0000	.0000	.0000	.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

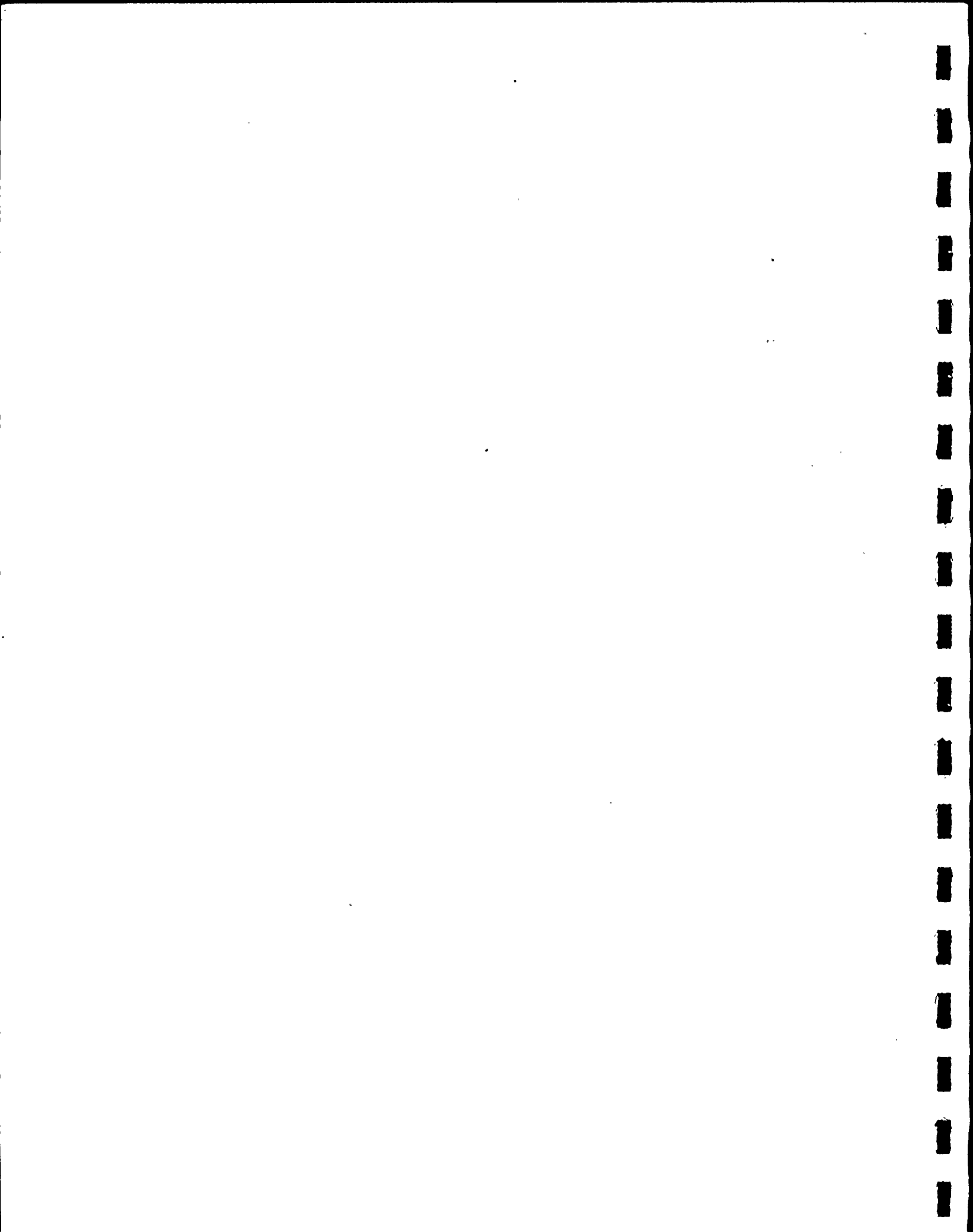
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 ARTHUR D. LITTLE INC.
 NINE PILE POWER STAT MODEL 1 X SHOCK
 FX FY FZ PX PY PZ DX DY DZ RX RY RZ
 (LB) (LB) (LB) (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)

16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	3.	-16.	3.	-926.	261.	1696.	-0.0000	.0000	.0000	.0000	-0.0000	-0.0000
18	1	160	END	-3.	16.	-3.	926.	-169.	-1198.	-0.0000	.0001	-0.0000	.0000	-0.0000	-0.0000
18	2	165	END	-3.	16.	-3.	926.	-78.	-701.	-0.0000	.0002	-0.0000	.0000	-0.0000	-0.0000
18	3	167	END	-3.	16.	-3.	926.	41.	-49.	-0.0000	.0003	-0.0001	.0000	-0.0000	-0.0000
19	1	167	BEG	3.	11.	-1.	-926.	-41.	49.	-0.0000	.0003	-0.0001	.0000	-0.0000	-0.0000
19	1	170	END	-3.	-11.	1.	926.	-4.	-504.	-0.0000	.0005	-0.0001	.0000	-0.0000	-0.0000
19	2	175	END	-3.	-11.	1.	926.	-49.	-958.	-0.0000	.0007	-0.0001	.0000	-0.0000	-0.0000
20	1	175	BEG	3.	26.	-3.	-926.	49.	958.	-0.0000	.0007	-0.0001	.0000	-0.0000	-0.0000
20	1	180	END	-3.	-26.	3.	926.	-175.	-2003.	-0.0000	.0011	-0.0001	.0000	-0.0000	-0.0000
20	2	185	END	-3.	-26.	3.	926.	-235.	-2501.	-0.0000	.0013	-0.0002	.0000	-0.0000	-0.0000
20	3	190	END	-3.	-26.	3.	376.	-237.	-3053.	-0.0000	.0014	-0.0002	.0000	-0.0000	-0.0000
21	1	190	BEG	3.	46.	-6.	-376.	237.	3053.	-0.0000	.0014	-0.0002	.0000	-0.0000	-0.0000
21	1	195	END	-3.	-46.	6.	360.	-236.	-3054.	-0.0000	.0014	-0.0002	.0000	-0.0000	-0.0000
21	2	200	END	-3.	-46.	6.	343.	-235.	-3054.	-0.0000	.0014	-0.0002	.0000	-0.0000	-0.0000
21	3	205	END	-3.	-46.	6.	-627.	-58.	-2093.	-0.0000	.0004	-0.0001	.0000	-0.0000	-0.0000
22	1	205	BEG	3.	50.	-6.	627.	58.	2093.	-0.0000	.0004	-0.0001	.0000	-0.0000	-0.0000
22	1	210	END	-3.	-50.	6.	-627.	10.	-1570.	-0.0000	-0.0000	-0.0001	.0000	-0.0000	-0.0000
22	2	215	END	-3.	-50.	6.	-627.	78.	-1067.	-0.0000	-0.0004	-0.0000	.0000	-0.0000	-0.0000
22	3	220	END	-3.	-50.	6.	-1674.	267.	0.	-0.0001	-0.0016	.0000	.0000	-0.0000	-0.0000
23	1	220	BEG	1.	17.	-6.	1674.	-267.	0.	-0.0001	-0.0016	.0000	.0000	-0.0000	-0.0000
23	1	225	END	-1.	-17.	6.	-1946.	281.	-0.	-0.0001	-0.0017	.0000	.0000	-0.0000	-0.0000
23	2	230	END	-1.	-17.	6.	-2574.	313.	-0.	-0.0001	-0.0020	.0000	.0000	-0.0000	-0.0000

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 ARTHUR D. LITTLE INC.
 NINE PILE POWER STAT MODEL 1 X SHOCK
 FX FY FZ PX PY PZ DX DY DZ RX RY RZ
 (LB) (LB) (LB) (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)



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 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 HX MY MZ DX DY DZ
 (IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN)

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-1.	-17.	6.	-3200.	345.	-0.	-.0002	-.0020	.0000	-.0000	-.0000	-.0000
23	4	240	END	-1.	-17.	6.	-3826.	377.	-0.	-.0002	-.0018	.0000	-.0000	.0000	-.0000
24	1	240	BEG	-3.	-34.	-5.	3826.	-377.	0.	-.0002	-.0018	.0000	-.0000	.0000	-.0000
24	1	245	END	3.	34.	5.	-2550.	251.	0.	-.0001	-.0014	.0000	-.0000	.0000	-.0000
24	2	250	END	3.	34.	5.	-1275.	126.	0.	-.0001	-.0007	.0000	-.0000	.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	0.0000	.0000	-.0000	.0000	-.0000
24	3	255	END	3.	34.	5.	0.	-0.	0.	.0000	0.0000	.0000	-.0000	.0000	-.0000

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 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	-5.	-22.	-1.	598.	-51.	-179.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	-0.	0.	0.	0.	-0.	0.	-0.0000	.0000	.0000	.0000	-0.0000	-0.0000
3	20	-0.	0.	0.	-0.	0.	0.	-0.0000	.0000	.0000	.0000	-0.0000	-0.0000
4	30	-0.	1.	0.	0.	0.	-0.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000
5	40	1.	1.	0.	0.	0.	-0.	.0000	.0000	.0000	0.0000	-0.0000	.0000
6	50	3.	1.	1.	0.	-0.	-0.	.0000	.0000	.0000	0.0000	.0000	.0000
7	57	13.	3.	4.	-0.	-0.	0.	.0000	.0000	.0000	.0000	.0000	-0.0000
8	70	1.	1.	1.	-0.	-0.	0.	.0000	.0000	.0000	.0000	.0000	-0.0000
9	65	0.	0.	0.	-0.	-0.	0.	.0000	.0000	.0000	.0000	.0000	-0.0000
10	87	-10.	-1.	-4.	18.	-244.	-126.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	-0.	27.	-4.	0.	0.	0.	-0.0000	.0003	-0.0001	.0000	-0.0000	-0.0000
20	175	-0.	15.	-2.	-0.	0.	0.	-0.0000	.0007	-0.0001	.0000	-0.0000	-0.0000
21	190	-0.	20.	-2.	0.	-0.	0.	-0.0000	.0014	-0.0002	.0000	-0.0000	-0.0000
22	205	-0.	4.	-1.	-0.	0.	0.	-0.0000	.0004	-0.0001	.0000	-0.0000	-0.0000
23	220	-2.	-33.	1.	-0.	0.	0.	-0.0001	-0.0016	.0000	.0000	-0.0000	-0.0000
24	240	-4.	-51.	1.	-0.	0.	-0.	-0.0002	-0.0018	.0000	-0.0000	.0000	-0.0000
25	255	3.	34.	5.	0.	-0.	0.	.0000	0.0000	.0000	-0.0000	.0000	-0.0000

ADLPIPE PAGE 50

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
MCDE 6 FREQUENCY 13.07

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 51

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCKLOADS
SHOCK

SC	ME	SEQ	POS	MODE FX (LB)	7 FREQUENCY FY (LB)	FZ (LB)	13.84 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	2	15	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	15	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	20	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	25	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	2	30	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	30	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	35	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	2	40	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	40	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	45	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2	50	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	50	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	55	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	2	57	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	57	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	60	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	2	65	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	3	70	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	70	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	75	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	2	80	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 52

 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT
 MODEL 1 X SHCCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	85	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	86	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	2	87	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	87	BEG	-1075.	-324.	-1546.	-68983.	131636.	28607.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	1075.	324.	1546.	70021.	-89065.	-38806.	-0.0000	-0.0000	.0001	.0000	-.0000	-.0000
10	2	90	END	1075.	324.	1546.	61454.	-49929.	-40493.	.0001	.0001	.0001	.0000	-.0000	-.0000
11	1	90	BEG	-1046.	-306.	-1524.	-61454.	49929.	40493.	.0001	.0001	.0001	.0000	-.0000	-.0000
11	1	95	END	1046.	306.	1524.	61276.	-49161.	-40525.	.0001	.0001	.0001	.0000	-.0000	-.0000
11	2	100	END	1046.	306.	1524.	-20857.	9345.	4119.	.0025	.0017	.0028	.0001	-.0000	-.0000
12	1	100	BEG	-766.	-117.	-1209.	20857.	-9345.	-4119.	.0025	.0017	.0028	.0001	-.0000	-.0000
12	1	105	END	766.	117.	1209.	-36995.	9345.	15612.	.0029	.0017	.0037	.0001	-.0000	-.0000
12	2	107	END	766.	117.	1209.	-105496.	9345.	57750.	.0042	.0017	.0065	.0000	-.0000	-.0000
13	1	107	BEG	-140.	136.	-236.	105496.	-9345.	-57750.	.0042	.0017	.0065	.0000	-.0000	-.0000
13	1	110	END	140.	-136.	236.	-113857.	9345.	62697.	.0048	.0017	.0078	.0000	-.0000	-.0000
13	2	115	END	140.	-136.	236.	-122218.	9345.	67645.	.0050	.0017	.0085	.0000	-.0000	-.0000
14	1	115	BEG	165.	240.	287.	122218.	-9345.	-67645.	.0050	.0017	.0085	.0000	-.0000	-.0000
14	1	120	END	-165.	-240.	-287.	-112038.	9345.	61808.	.0048	.0017	.0085	-.0000	-.0000	.0000
14	2	125	END	-165.	-240.	-287.	-101858.	9345.	55971.	.0042	.0017	.0078	-.0000	-.0000	.0000
15	1	125	BEG	239.	362.	851.	101858.	-9345.	-55971.	.0042	.0017	.0078	-.0000	-.0000	.0000
15	1	130	END	-469.	-362.	-851.	-61011.	9345.	33482.	.0030	.0017	.0060	-.0000	-.0000	.0000
15	2	135	END	-469.	-362.	-851.	-20165.	9345.	10952.	.0014	.0017	.0035	-.0001	-.0000	.0000
16	1	135	BEG	570.	484.	1108.	20165.	-9345.	-10952.	.0014	.0017	.0035	-.0001	-.0000	.0000
16	1	140	END	-570.	-484.	-1108.	-5940.	9345.	3636.	.0009	.0017	.0028	-.0001	-.0000	.0000
16	2	145	END	-570.	-484.	-1108.	52121.	28484.	-34587.	-.0000	.0003	.0002	-.0000	-.0000	.0000

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 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT
 MODEL 1 X SHCCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 53

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	-570.	-484.	-1108.	52474.	28837.	-34923.	-.0000	.0003	.0002	-.0000	-.0000	.0000
17	1	150	BEG	568.	497.	1117.	-52474.	-28837.	34923.	-.0000	.0003	.0002	-.0000	-.0000	.0000
17	1	155	END	-568.	-497.	-1117.	72289.	48623.	-53796.	.0000	0.0000	-.0000	.0000	-.0000	-.0000
18	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	160	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	2	165	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	3	167	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	167	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	170	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	2	175	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	175	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	180	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	2	185	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	3	190	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	190	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	195	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	2	200	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	3	205	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	205	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	210	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	2	215	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	3	220	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	220	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	225	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	2	230	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 54

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT
MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	EY (LB)	FZ (LB)	MX (IN-LB)	PY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	4	240	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	240	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	245	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	2	250	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	OIS	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT
MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 CODE 7 FREQUENCY 13.84

NET PT SEG		NETWORK POINT REACTIONS AND DEFLECTIONS											
		FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	20	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	30	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	40	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	50	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	57	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	70	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	85	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	87	-1075.	-324.	-1546.	-68983.	131636.	28607.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	29.	18.	21.	0.	0.	-0.	.0001	.0001	.0001	.0000	-.0000	-.0000
12	100	280.	189.	315.	-0.	0.	0.	.0025	.0017	.0028	.0001	-.0000	-.0000
13	107	627.	253.	973.	-0.	-0.	0.	.0042	.0017	.0065	.0000	-.0000	-.0000
14	115	304.	104.	523.	-0.	0.	0.	.0050	.0017	.0085	.0000	-.0000	-.0000
15	125	304.	122.	564.	0.	-0.	-0.	.0042	.0017	.0078	-.0000	-.0000	.0000
16	135	101.	122.	257.	0.	-0.	0.	.0012	.0017	.0035	-.0001	-.0000	.0000
17	150	-2.	13.	9.	0.	0.	-0.	-.0000	.0003	.0002	-.0000	-.0000	.0000
18	155	-568.	-497.	-1117.	72289.	46623.	-53796.	.0000	0.0000	-.0000	.0000	-.0000	-.0000
19	167	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	175	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	190	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	205	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	220	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	240	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	255	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

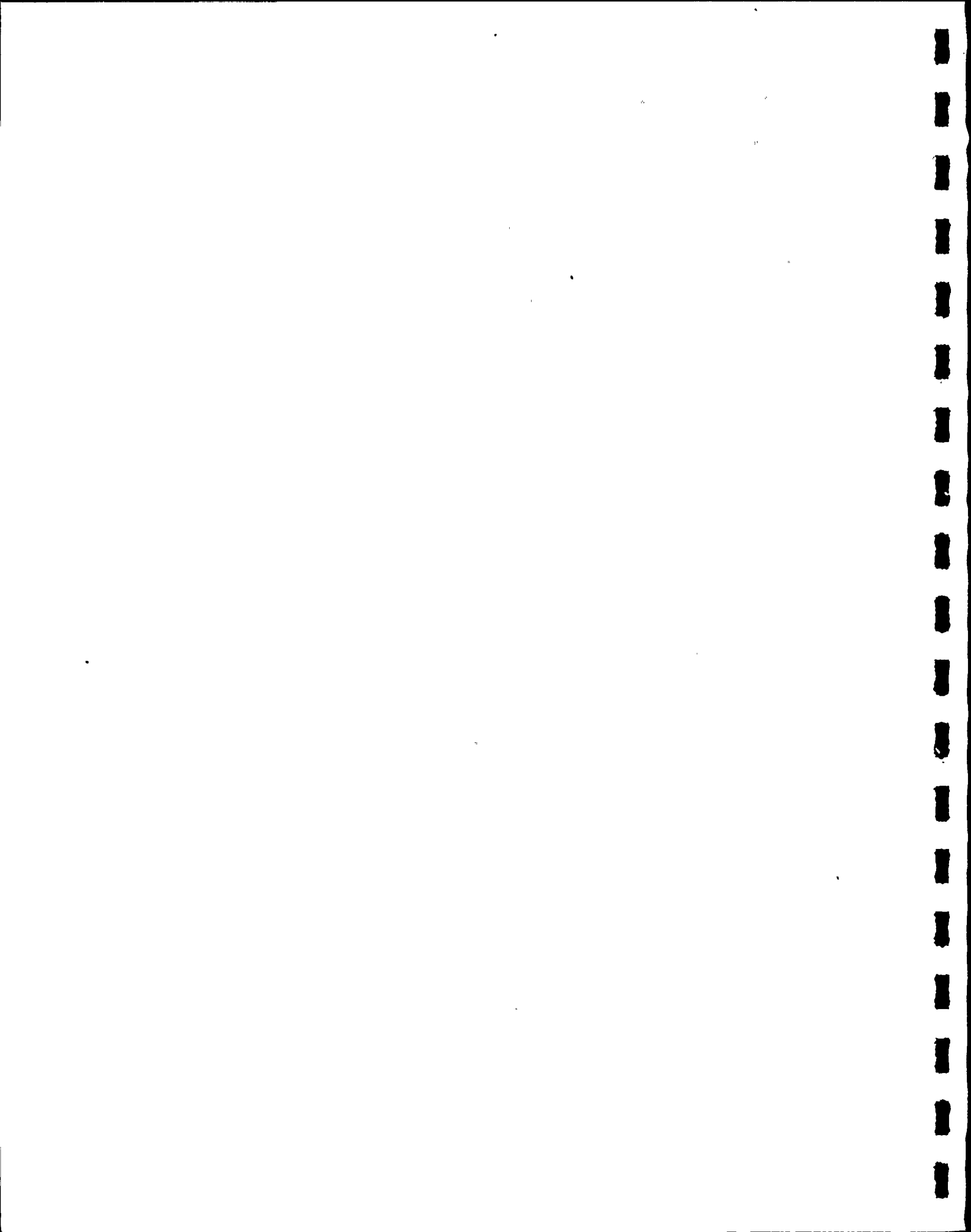
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MCDE 7 FREQUENCY 13.84

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS										
	FX (LB)	EY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)



ADLPIPE PAGE 57

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCKLOADS
SHOCK

SC	HE	SEO	POS	MCHE FX (LB)	8 FREQUENCY FY (LB)	FZ (LB)	15.60 HX (IN-LB)	MY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	2	15	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	15	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	20	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	25	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	2	30	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	30	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	35	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	2	40	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	40	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	45	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2	50	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	50	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	55	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	2	57	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	57	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	60	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	2	65	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	3	70	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	70	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	75	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	2	80	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEO	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
8	3	85	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	85	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	86	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	2	87	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	87	BEG	-2612.	-1769.	1343.	-50024.	71484.	31632.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	2612.	1769.	-1343.	60126.	-128600.	-87341.	-0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0000
10	2	90	END	2612.	1769.	-1343.	8961.	-60067.	-96555.	0.0001	0.0001	0.0000	0.0000	-0.0000	-0.0000
11	1	90	BEG	-2569.	-1751.	1357.	-8961.	60067.	96555.	0.0001	0.0001	0.0000	0.0000	-0.0000	-0.0000
11	1	95	END	2569.	1751.	-1357.	7942.	-58715.	-96738.	0.0002	0.0001	0.0001	0.0000	-0.0000	-0.0000
11	2	100	END	2569.	1751.	-1357.	-8497.	44221.	4893.	0.0043	-0.0007	-0.0011	-0.0000	-0.0000	-0.0001
12	1	100	BEG	-1962.	-1851.	1208.	8497.	-44221.	-4893.	0.0043	-0.0007	-0.0011	-0.0000	-0.0000	-0.0001
12	1	105	END	1962.	1851.	-1208.	9621.	44221.	34316.	0.0053	-0.0007	-0.0018	-0.0000	-0.0000	-0.0001
12	2	107	END	1962.	1851.	-1208.	76050.	44221.	142192.	0.0087	-0.0007	-0.0044	-0.0000	-0.0000	-0.0001
13	1	107	BEG	-309.	-1978.	365.	-76050.	-44221.	-142192.	0.0087	-0.0007	-0.0044	-0.0000	-0.0000	-0.0001
13	1	110	END	309.	1978.	-365.	89005.	44221.	153156.	0.0102	-0.0006	-0.0058	-0.0000	-0.0000	-0.0000
13	2	115	END	309.	1978.	-365.	101959.	44221.	164120.	0.0108	-0.0006	-0.0066	-0.0000	-0.0000	-0.0000
14	1	115	BEG	537.	-2027.	-150.	-101959.	-44221.	-164120.	0.0108	-0.0006	-0.0066	-0.0000	-0.0000	-0.0000
14	1	120	END	-537.	2027.	150.	96646.	44221.	145060.	0.0105	-0.0006	-0.0068	0.0000	-0.0000	0.0000
14	2	125	END	-537.	2027.	150.	91332.	44221.	126000.	0.0094	-0.0006	-0.0065	0.0000	0.0000	0.0000
15	1	125	BEG	1398.	-2078.	-748.	-91332.	-44221.	-126000.	0.0094	-0.0006	-0.0065	0.0000	0.0000	0.0000
15	1	130	END	-1398.	2078.	748.	55437.	44221.	56865.	0.0067	-0.0005	-0.0052	0.0000	0.0000	0.0001
15	2	135	END	-1398.	2078.	748.	19542.	44221.	-8211.	0.0034	-0.0005	-0.0034	0.0000	0.0000	0.0001
16	1	135	BEG	1712.	-2122.	-1065.	-19542.	-44221.	8211.	0.0034	-0.0005	-0.0034	0.0000	0.0000	0.0001
16	1	140	END	-1712.	2122.	1065.	5865.	44221.	-30196.	0.0025	-0.0005	-0.0029	0.0000	0.0000	0.0001
16	2	145	END	-1712.	2122.	1065.	-83180.	-19487.	-46380.	0.0002	-0.0003	-0.0004	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
16	3	150	END	-1712.	2122.	1065.	-84134.	-20664.	-45567.	.0002	-.0003	-.0004	.0000	.0000	.0000
17	1	150	BEG	1723.	-2140.	-1086.	84134.	20664.	45567.	.0002	-.0003	-.0004	.0000	.0000	.0000
17	1	155	END	-1723.	2140.	1086.	-137259.	-86383.	-345.	.0000	-.0000	.0000	-.0000	.0000	-.0000
18	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	160	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	2	165	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	3	167	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	167	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	170	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	2	175	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	175	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	180	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	2	185	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	3	190	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	190	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	195	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	2	200	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	3	205	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	205	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	210	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	2	215	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	3	220	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	220	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	225	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	2	230	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS

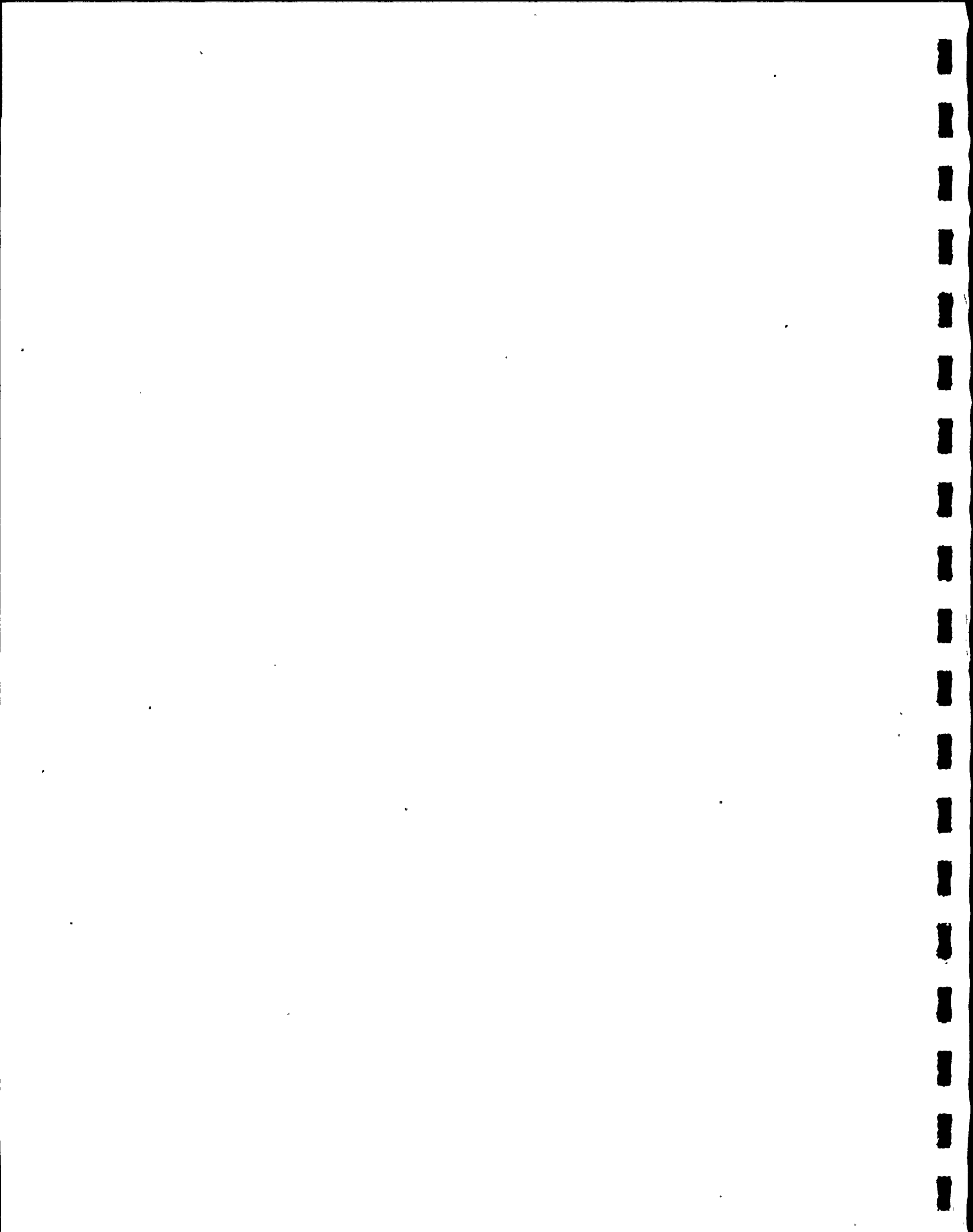
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 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	4	240	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	240	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	245	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	2	250	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 ADLPIPE STRESS ANALYSIS



NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	20	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	30	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	40	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	50	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	57	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	70	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	85	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	87	-2612.	-1769.	1343.	-50084.	71484.	31632.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	43.	19.	14.	-0.	0.	0.	.0001	.0001	.0000	.0000	-.0000	-.0000
12	100	607.	-100.	-150.	0.	0.	0.	.0043	-.0007	-.0011	-.0000	-.0000	-.0001
13	107	1652.	-128.	-843.	0.	0.	0.	.0087	-.0007	-.0044	-.0000	-.0000	-.0001
14	115	847.	-48.	-515.	0.	-0.	0.	.0108	-.0006	-.0066	-.0000	-.0000	-.0000
15	125	861.	-51.	-598.	-0.	0.	-0.	.0094	-.0006	-.0065	.0000	.0000	.0000
16	135	314.	-44.	-317.	0.	0.	0.	.0034	-.0005	-.0034	.0000	.0000	.0001
17	150	11.	+18.	-21.	-0.	-0.	0.	.0002	-.0003	-.0004	.0000	.0000	.0000
18	155	-1723.	2140.	1086.	+137259.	-86383.	-345.	.0000	-.0000	.0000	-.0000	.0000	-.0000
19	167	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	175	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	190	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	205	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	220	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	240	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	255	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
MODE 8 FREQUENCY 15.60

NET PT SEQ	F _X (LB)	F _Y (LB)	F _Z (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS								
				H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

LOADS
SHECK

SC	ME	SEQ	POS	MCDE FX (LB)	9 FREQUENCY FY (LB)	FZ (LB)	15.93 HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-93.	-14.	264.	-6171.	5296.	-7490.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	93.	14.	-264.	6180.	-5384.	7669.	.0000	.0000	-.0000	.0000	-.0000	.0000
1	2	15	END	93.	14.	-264.	-5072.	-11964.	3352.	-.0001	-.0001	-.0001	.0000	-.0000	.0000
2	1	15	BEG	-100.	-20.	256.	5072.	11964.	-3352.	-.0001	-.0001	-.0001	.0000	-.0000	.0000
2	1	20	END	100.	20.	-256.	-16453.	-11964.	1259.	-.0001	-.0001	-.0002	.0000	-.0000	.0000
3	1	20	BEG	-12.	-69.	-51.	10298.	-3656.	488.	-.0001	-.0001	-.0002	.0000	-.0000	.0000
3	1	25	END	12.	69.	51.	-8486.	3656.	-900.	-.0000	-.0001	-.0002	.0000	-.0000	.0000
3	2	30	END	12.	69.	51.	-6638.	3656.	-1312.	.0000	-.0001	-.0002	-.0000	-.0000	.0000
4	1	30	BEG	-10.	-79.	-67.	6638.	-3656.	1312.	.0000	-.0001	-.0002	-.0000	-.0000	.0000
4	1	35	END	10.	79.	67.	-4256.	3656.	-1678.	.0001	-.0001	-.0001	-.0000	-.0000	.0000
4	2	40	END	10.	79.	67.	-1874.	3656.	-2644.	.0001	-.0001	-.0000	-.0000	-.0000	.0000
5	1	40	BEG	-3.	-88.	-70.	1874.	-3656.	2044.	.0001	-.0001	-.0000	-.0000	-.0000	.0000
5	1	45	END	3.	88.	70.	613.	3656.	-2160.	.0001	-.0001	.0001	-.0000	-.0000	.0000
5	2	50	END	3.	88.	70.	3100.	3656.	-2275.	.0001	-.0001	.0002	-.0000	-.0000	-.0000
6	1	50	BEG	10.	-102.	-50.	-3100.	-3656.	2275.	.0001	-.0001	.0002	-.0000	-.0000	-.0000
6	1	55	END	-10.	102.	50.	6107.	3656.	-1851.	.0001	-.0001	.0003	-.0000	-.0000	-.0000
6	2	57	END	-10.	102.	50.	9363.	3656.	-976.	.0000	-.0001	.0003	-.0000	-.0000	-.0000
7	1	57	BEG	31.	-147.	83.	-9363.	-3656.	976.	.0000	-.0001	.0003	-.0000	-.0000	-.0000
7	1	60	END	-31.	147.	-83.	6071.	3656.	233.	.0000	-.0001	.0003	.0000	-.0000	-.0000
7	2	65	END	-31.	147.	-83.	2779.	3656.	1443.	-.0000	-.0001	.0002	.0000	-.0000	-.0000
7	3	70	END	-31.	147.	-83.	-17.	3656.	2470.	-.0000	-.0001	.0001	.0000	.0000	-.0000
8	1	70	BEG	27.	-158.	97.	17.	-3656.	-2470.	-.0000	-.0001	.0001	.0000	.0000	-.0000
8	1	75	END	-27.	158.	-97.	-75.	3656.	2486.	-.0000	-.0001	.0001	.0000	.0000	-.0000
8	2	80	END	-27.	158.	-97.	-5226.	-824.	-3362.	.0000	-.0000	.0000	.0000	.0000	.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-27.	158.	-97.	-5237.	-883.	-3456.	.0000	-.0000	.0000	.0000	.0000	.0000
9	1	85	BEG	32.	-164.	100.	5237.	883.	3456.	.0000	-.0000	.0000	.0000	.0000	.0000
9	1	86	END	-32.	164.	-100.	-5740.	-3686.	-7297.	.0000	-.0000	-.0000	.0000	.0000	.0000
9	2	87	END	-32.	164.	-100.	-553.	-3686.	-9535.	-.0000	-.0000	.0000	.0000	.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE STRESS ANALYSIS

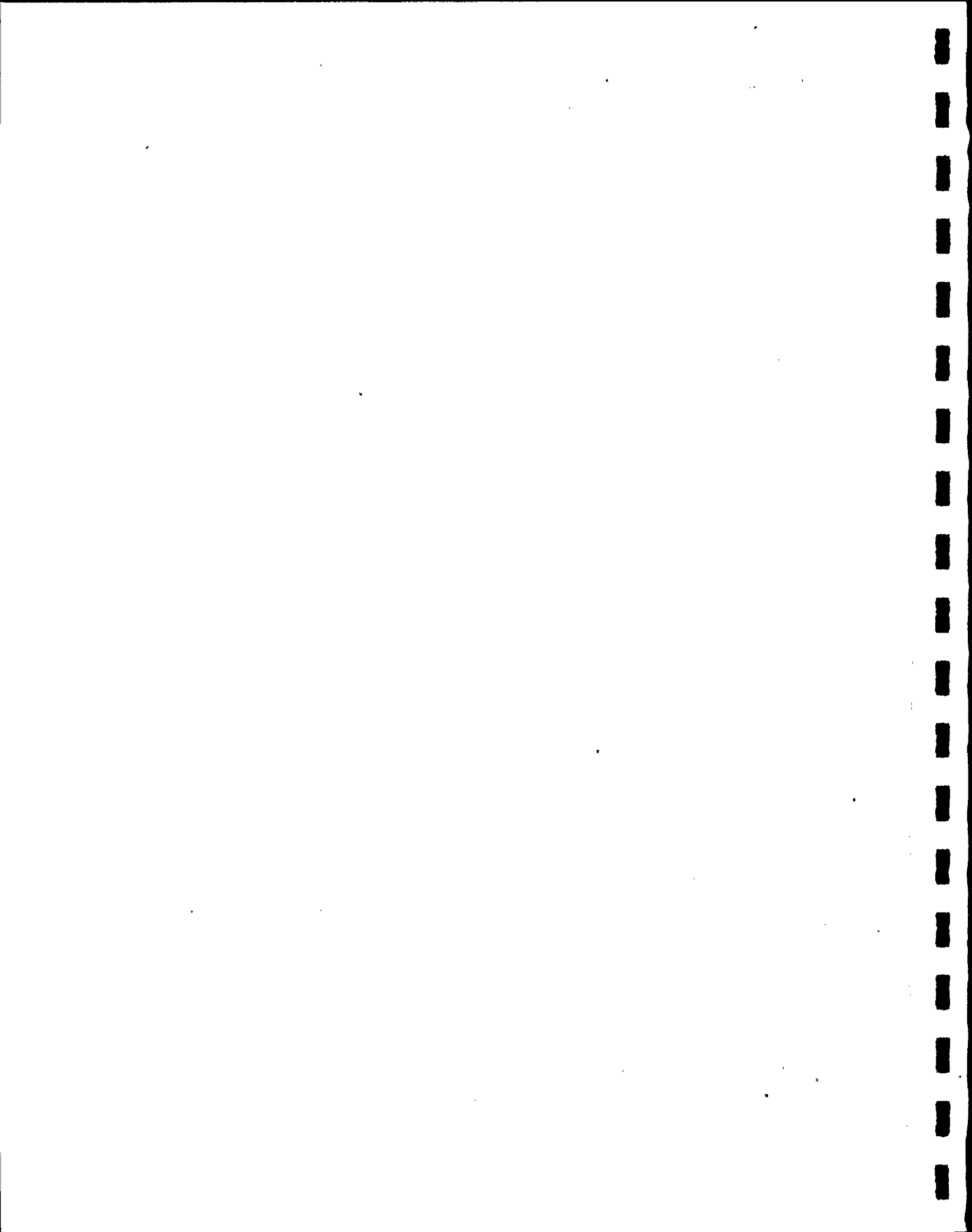
ADLPIPE PAGE 65

 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-94.	40.	294.	155.	15621.	-1747.	-.0001	-.0001	-.0002	.0000	-.0000	.0000
18	1	160	END	94.	-40.	-294.	-155.	-6535.	500.	-.0001	-.0002	-.0008	.0000	-.0000	.0000
18	2	165	END	94.	-40.	-294.	-155.	2550.	-748.	-.0001	-.0003	-.0018	.0000	-.0000	.0000
18	3	167	END	94.	-40.	-294.	-155.	14440.	-2380.	-.0001	-.0004	-.0030	.0000	-.0000	.0000
19	1	167	BEG	-103.	-12.	-61.	155.	-14440.	2380.	-.0001	-.0004	-.0030	.0000	-.0000	.0000
19	1	170	END	103.	12.	61.	-155.	11980.	-1915.	-.0001	-.0004	-.0033	.0000	.0000	-.0000
19	2	175	END	103.	12.	61.	-155.	9520.	-1450.	-.0001	-.0002	-.0027	-.0000	.0000	-.0000
20	1	175	BEG	-105.	-18.	-140.	155.	-9520.	1450.	-.0001	-.0002	-.0027	-.0000	.0000	-.0000
20	1	180	END	105.	18.	140.	-155.	3921.	-709.	-.0001	.0001	-.0012	-.0000	.0000	-.0000
20	2	185	END	105.	18.	140.	-155.	1254.	-355.	-.0001	.0002	-.0004	-.0000	.0000	-.0000
20	3	190	END	105.	18.	140.	23.	-3879.	190.	.0008	.0005	.0006	-.0000	.0000	-.0000
21	1	190	BEG	-87.	-8.	-128.	-23.	3879.	-190.	.0008	.0005	.0006	-.0000	.0000	-.0000
21	1	195	END	87.	8.	128.	23.	-3909.	192.	.0008	.0005	.0006	-.0000	.0000	-.0000
21	2	200	END	87.	8.	128.	23.	-3940.	194.	.0008	.0005	.0006	-.0000	.0000	-.0000
21	3	205	END	87.	8.	128.	9.	-3091.	148.	.0013	.0003	.0003	-.0000	-.0000	-.0000
22	1	205	BEG	-68.	-4.	-122.	-9.	3091.	-148.	.0013	.0003	.0003	-.0000	-.0000	-.0000
22	1	210	END	68.	4.	122.	9.	-1805.	111.	.0013	.0003	.0004	-.0000	-.0000	-.0000
22	2	215	END	68.	4.	122.	9.	-519.	74.	.0013	.0002	.0004	-.0000	-.0000	-.0000
22	3	220	END	68.	4.	122.	82.	621.	0.	.0013	.0001	.0004	-.0000	.0000	-.0000
23	1	220	BEG	-28.	-2.	-109.	-82.	-621.	0.	.0013	.0001	.0004	-.0000	.0000	-.0000
23	1	225	END	28.	2.	109.	112.	160.	-0.	.0013	.0001	.0004	-.0000	.0000	-.0000
23	2	230	END	28.	2.	109.	180.	-894.	-0.	.0014	.0001	.0004	-.0000	.0000	-.0000

ADLPIPE PAGE 66

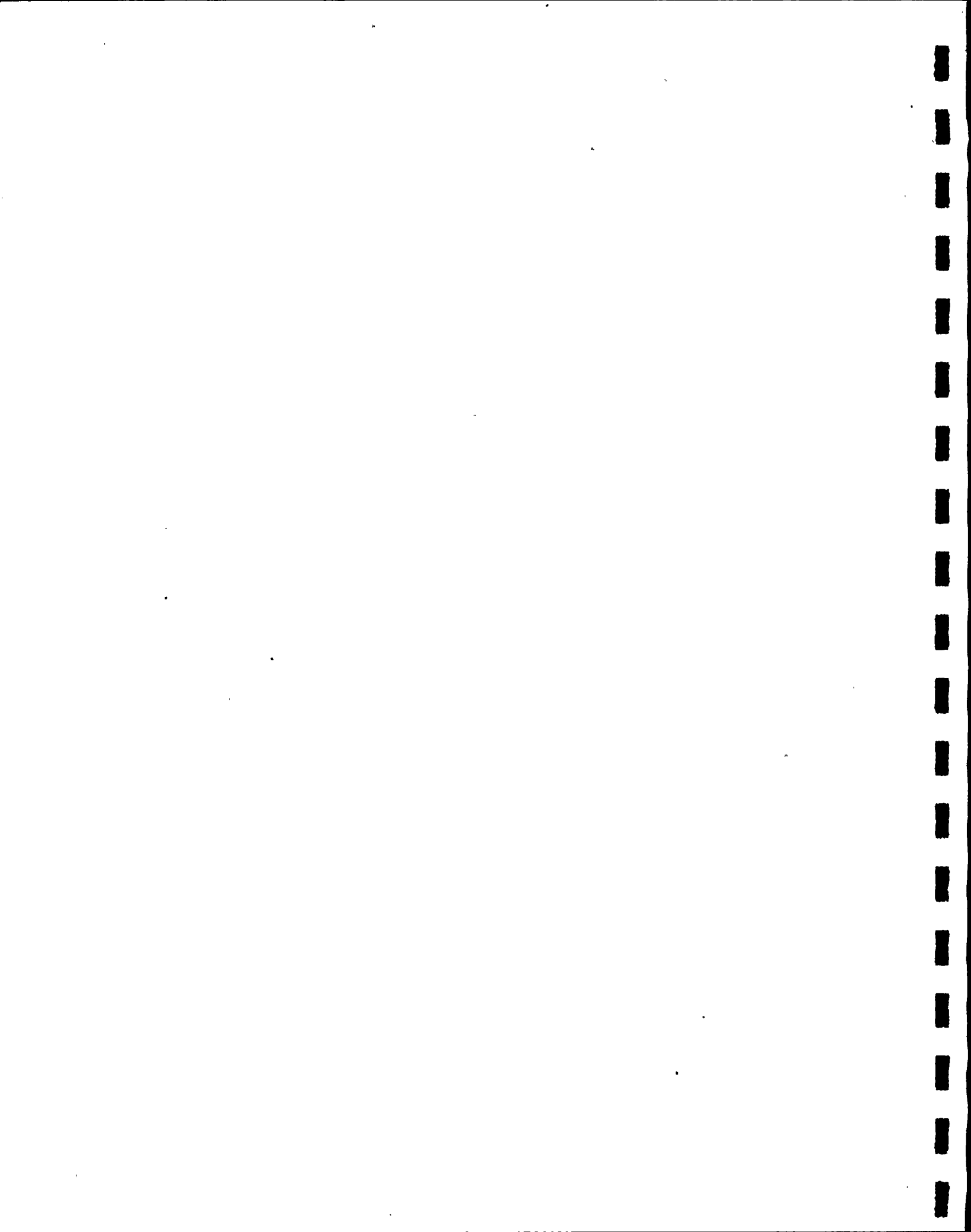
 ARTHUR D. LITTLE INC.
 NINE MILE POWER STAT MODEL 1 X SHOCK
 ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 66

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	28.	2.	109.	248.	-1947.	-0.	.0015	.0001	.0005	-.0000	-.0000	-.0000
23	4	240	END	28.	2.	109.	316.	-3000.	-0.	.0013	.0001	.0005	.0000	-.0000	-.0000
24	1	240	BEG	27.	3.	-90.	-316.	3000.	0.	.0013	.0001	.0005	.0000	-.0000	-.0000
24	1	245	END	-27.	-3.	90.	211.	-2000.	0.	.0010	.0001	.0005	.0000	-.0000	-.0000
24	2	250	END	-27.	-3.	90.	105.	-1000.	0.	.0005	.0000	.0005	.0000	-.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	.0005	.0000	-.0000	-.0000
24	3	255	END	-27.	-3.	90.	0.	0.	0.	-.0000	-.0000	.0005	.0000	-.0000	-.0000



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MCDE 9 FREQUENCY 15.93

NET PT SEC			NETWORK POINT REACTIONS AND DEFLECTIONS											
			FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5		-93.	-14.	264.	-6171.	5296.	-7690.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		-6.	-6.	-8.	-0.	0.	-0.	-.0001	-.0001	-.0001	.0000	-.0000	.0000
3	20		-6.	-8.	-14.	-0.	0.	-0.	-.0001	-.0001	-.0002	.0000	-.0000	.0000
4	30		1.	-10.	-16.	0.	-0.	-0.	.0000	-.0001	-.0002	-.0000	-.0000	.0000
5	40		7.	-9.	-3.	0.	0.	-0.	.0001	-.0001	-.0000	-.0000	-.0000	.0000
6	50		14.	-14.	20.	0.	0.	0.	.0001	-.0001	.0002	-.0000	-.0000	-.0000
7	57		20.	-45.	133.	0.	-0.	0.	.0000	-.0001	.0003	-.0000	-.0000	-.0000
8	70		-4.	-11.	14.	-0.	-0.	0.	-.0000	-.0001	.0001	.0000	.0000	-.0000
9	85		5.	-6.	3.	-0.	-0.	-0.	.0000	-.0000	.0000	.0000	.0000	.0000
10	87		-32.	164.	-100.	-553.	-3686.	-9535.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155		0.	6.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167		-9.	-52.	-355.	0.	0.	-0.	-.0001	-.0004	-.0030	.0000	-.0000	.0000
20	175		-2.	-7.	-78.	0.	-0.	0.	-.0001	-.0002	-.0027	-.0000	.0000	-.0000
21	190		18.	16.	12.	0.	-0.	0.	.0008	.0005	.0006	-.0000	.0000	-.0000
22	205		19.	5.	5.	-0.	-0.	0.	.0013	.0003	.0003	-.0000	-.0000	-.0000
23	220		40.	2.	14.	-0.	-0.	0.	.0013	.0001	.0004	-.0000	.0000	-.0000
24	240		55.	5.	19.	0.	0.	-0.	.0013	.0001	.0005	.0000	-.0000	-.0000
25	255		-27.	-3.	90.	0.	0.	0.	-.0000	-.0000	.0005	.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
MODE 9 FREQUENCY 15.93

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 69

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

LOADS
SHOCK

SC	WE	SEQ	POS	MODE FX (LB)	10 FREQUENCY FY (LB)	FZ (LB)	18.09 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	17.	-129.	3.	3906.	1156.	333.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-17.	129.	-3.	-3831.	-1147.	-349.	-0.0000	.0000	.0000	-0.0000	-0.0000	-0.0000
1	2	15	END	-17.	129.	-3.	1723.	-437.	-804.	-0.0001	.0001	.0001	-0.0000	-0.0000	-0.0000
2	1	15	BEG	13.	-125.	7.	-1723.	437.	804.	-0.0001	.0001	.0001	-0.0000	-0.0000	-0.0000
2	1	20	END	-13.	125.	-7.	1573.	-437.	-539.	-0.0001	.0001	.0001	-0.0000	-0.0000	-0.0000
3	1	20	BEG	-9.	-23.	-3.	-1094.	-274.	-4326.	-0.0001	.0001	.0001	-0.0000	-0.0000	-0.0000
3	1	25	END	9.	23.	3.	1204.	274.	4011.	-0.0001	.0001	.0001	-0.0000	-0.0000	-0.0000
3	2	30	END	9.	23.	3.	1315.	274.	3697.	-0.0001	.0001	.0001	.0000	-0.0000	-0.0000
4	1	30	BEG	-23.	-16.	6.	-1315.	-274.	-3697.	-0.0001	.0001	.0001	.0000	-0.0000	-0.0000
4	1	35	END	23.	16.	-6.	1119.	274.	2894.	-0.0001	.0001	.0001	.0000	-0.0000	.0000
4	2	40	END	23.	16.	-6.	923.	274.	2091.	-0.0001	.0001	.0001	.0000	-0.0000	.0000
5	1	40	BEG	-32.	-10.	12.	-923.	-274.	-2091.	-0.0001	.0001	.0001	.0000	-0.0000	.0000
5	1	45	END	32.	10.	-12.	500.	274.	945.	-0.0001	.0001	.0000	.0000	-0.0000	.0000
5	2	50	END	32.	10.	-12.	78.	274.	-201.	-0.0000	.0001	.0000	.0000	-0.0000	.0000
6	1	50	BEG	-33.	1.	15.	-78.	-274.	201.	-0.0000	.0001	.0000	.0000	-0.0000	.0000
6	1	55	END	33.	-1.	-15.	-814.	274.	-2194.	.0001	.0001	-0.0000	.0000	-0.0000	.0000
6	2	57	END	33.	-1.	-15.	-1780.	274.	-4352.	.0001	.0001	-0.0000	.0000	-0.0000	.0000
7	1	57	BEG	27.	35.	-11.	1780.	-274.	4352.	.0001	.0001	-0.0000	.0000	-0.0000	.0000
7	1	60	END	-27.	-35.	11.	-1345.	274.	-3296.	.0001	.0001	-0.0001	.0000	-0.0000	-0.0000
7	2	65	END	-27.	-35.	11.	-910.	274.	-2239.	.0001	.0001	-0.0001	-0.0000	-0.0000	-0.0000
7	3	70	END	-27.	-35.	11.	-581.	274.	-1342.	.0001	.0001	-0.0000	-0.0000	-0.0000	-0.0000
8	1	70	BEG	35.	44.	-17.	541.	-274.	1342.	.0001	.0001	-0.0000	-0.0000	-0.0000	-0.0000
8	1	75	END	-35.	-44.	17.	-530.	274.	-1321.	.0001	.0001	-0.0000	-0.0000	-0.0000	-0.0000
8	2	80	END	-35.	-44.	17.	460.	870.	2225.	-0.0000	.0000	-0.0000	-0.0000	-0.0000	-0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK
RX MY MZ DX DY DZ RX RY RZ
(IN-LB) (IN-LB) (IN-LB) (IN) (IN) (IN) (RAD) (RAD) (RAD)

SC	HE	SEO	POS	FX (LB)	FY (LB)	FZ (LB)	RX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-35.	-44.	17.	463.	878.	2251.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
9	1	85	BEG	34.	47.	-19.	-463.	-878.	-2251.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
9	1	86	END	-34.	-47.	19.	606.	1281.	3513.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
9	2	87	END	-34.	-47.	19.	-364.	1281.	1759.	.0000	.0000	-.0000	-.0000	-.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 X SHOCK

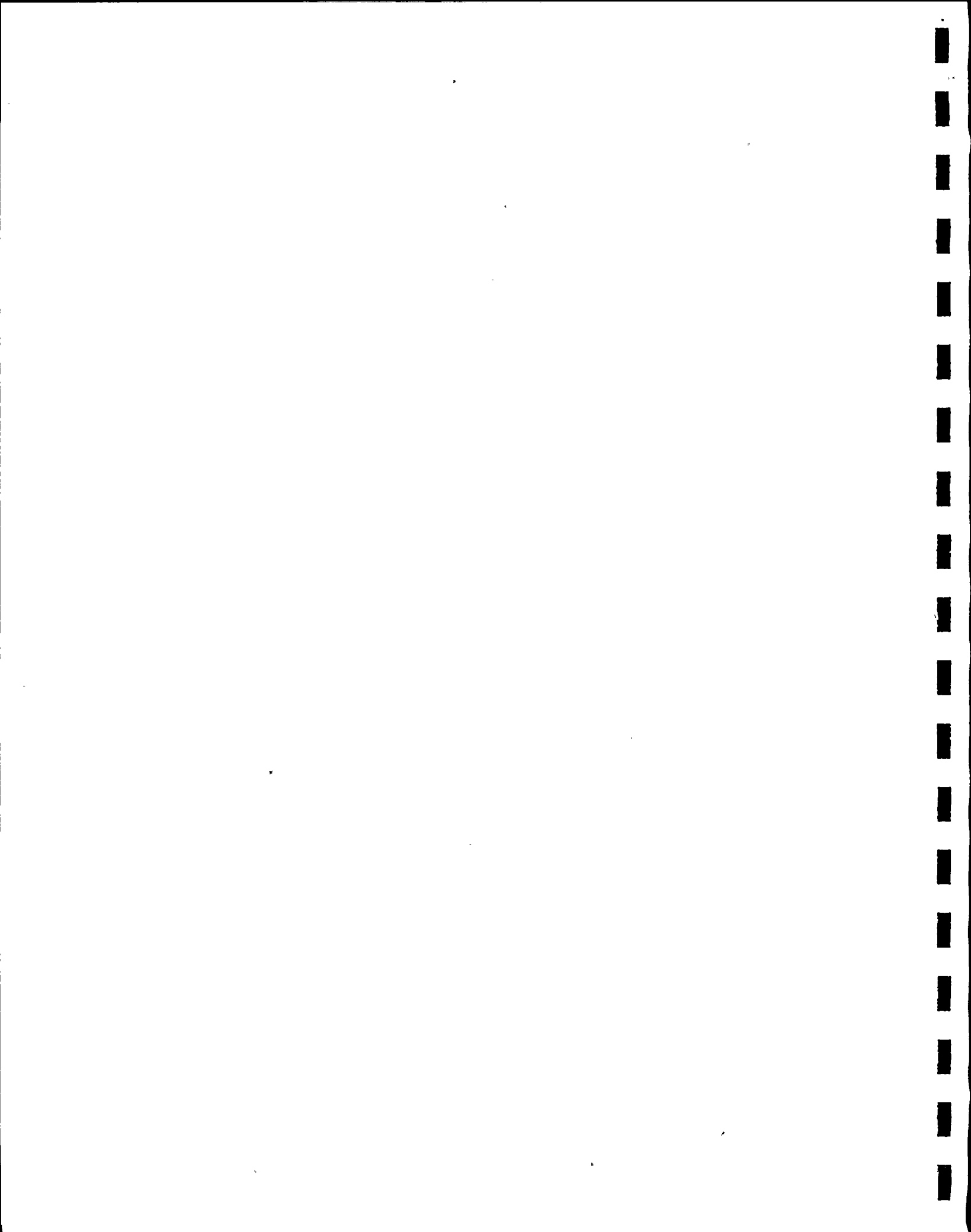
ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	HY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	14.	-95.	17.	-480.	711.	4865.	-.0001	.0001	.0001	-.0000	-.0000	-.0000
18	1	160	END	-14.	95.	-17.	480.	-186.	-1915.	-.0001	.0002	.0000	.0000	-.0000	-.0000
18	2	165	END	-14.	95.	-17.	480.	339.	1036.	-.0001	.0005	-.0001	.0000	-.0000	-.0000
18	3	167	END	-14.	95.	-17.	480.	1025.	4897.	-.0001	.0008	-.0001	.0000	-.0000	-.0000
19	1	167	BEG	0.	21.	-5.	-480.	-1025.	-4897.	-.0001	.0008	-.0001	.0000	-.0000	-.0000
19	1	170	END	-0.	-21.	5.	480.	845.	4036.	-.0001	.0008	-.0002	.0000	.0000	.0000
19	2	175	END	-0.	-21.	5.	480.	664.	3174.	-.0001	.0004	-.0001	.0000	.0000	.0000
20	1	175	BEG	-3.	38.	-9.	-480.	-664.	-3174.	-.0001	.0004	-.0001	.0000	.0000	.0000
20	1	180	END	3.	-38.	9.	480.	314.	1642.	-.0001	-.0002	-.0000	.0000	.0000	.0000
20	2	185	END	3.	-38.	9.	480.	148.	912.	-.0001	-.0005	.0001	.0000	.0000	.0000
20	3	190	END	3.	-38.	9.	-334.	-104.	114.	-.0000	-.0011	.0001	.0000	.0000	.0000
21	1	190	BEG	-5.	8.	-5.	334.	104.	-114.	-.0000	-.0011	.0001	.0000	.0000	.0000
21	1	195	END	5.	-8.	5.	-334.	-104.	115.	-.0000	-.0011	.0001	.0000	.0000	.0000
21	2	200	END	5.	-8.	5.	-339.	-107.	115.	-.0000	-.0011	.0001	.0000	.0000	.0000
21	3	205	END	5.	-8.	5.	-515.	-103.	290.	-.0000	-.0008	.0001	.0000	.0000	.0000
22	1	205	BEG	-5.	7.	-3.	515.	103.	-290.	-.0000	-.0008	.0001	.0000	.0000	.0000
22	1	210	END	5.	7.	3.	-515.	-72.	218.	-.0000	-.0005	.0001	.0000	.0000	.0000
22	2	215	END	5.	7.	3.	-515.	-42.	145.	-.0000	-.0003	.0001	.0000	.0000	.0000
22	3	220	END	5.	7.	3.	-370.	-84.	-0.	.0000	.0001	.0000	.0000	.0000	.0000
23	1	220	BEG	-4.	-1.	-3.	370.	84.	-0.	.0000	.0001	.0000	.0000	.0000	.0000
23	1	225	END	4.	1.	3.	-350.	-144.	0.	.0001	.0001	.0000	.0000	.0000	.0000
23	2	230	END	4.	1.	3.	-306.	-283.	0.	.0001	.0000	.0000	.0000	.0000	.0000

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 ARTHOR D. LITTLE INC.
 NINE MILE POKER STAT MODEL 1 X SHOCK
 ADLPIPE STRESS ANALYSIS

SC	HE	SEO	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	4.	1.	3.	-262.	-421.	0.	.0002	.0000	.0000	.0000	.0000	.0000
23	4	240	END	4.	1.	3.	-218.	-560.	0.	.0002	-.0000	.0000	.0000	-.0000	.0000
24	1	240	BEG	5.	-2.	-2.	218.	560.	0.	.0002	-.0000	.0000	.0000	-.0000	.0000
24	1	245	END	-5.	2.	2.	-145.	-373.	0.	.0001	-.0000	.0000	-.0000	-.0000	.0000
24	2	250	END	-5.	2.	2.	-73.	-187.	0.	.0001	-.0000	.0000	-.0000	-.0000	.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	.0000	.0000	-.0000	-.0000	.0000
24	3	255	END	-5.	2.	2.	0.	0.	0.	-.0000	.0000	.0000	-.0000	-.0000	.0000



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MODE 10 FREQUENCY 18.09

NET PT SEG		NETWORK POINT REACTIONS AND DEFLECTIONS											
		F _x (LB)	F _y (LB)	F _z (LB)	H _x (IN-LB)	H _y (IN-LB)	H _z (IN-LB)	D _x (IN)	D _y (IN)	D _z (IN)	R _x (RAD)	R _y (RAD)	R _z (RAD)
1	5	17.	-129.	3.	3906.	1156.	333.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	-4.	4.	5.	0.	0.	0.	-.0001	.0001	.0001	-.0000	-.0000	-.0000
3	20	-8.	6.	7.	0.	0.	0.	-.0001	.0001	.0001	-.0000	-.0000	-.0000
4	30	-14.	7.	9.	-0.	0.	0.	-.0001	.0001	.0001	.0000	-.0000	-.0000
5	40	-10.	7.	6.	-0.	-0.	-0.	-.0001	.0001	.0001	.0000	-.0000	.0000
6	50	-1.	10.	3.	-0.	0.	-0.	-.0000	.0001	.0000	.0000	-.0000	.0000
7	57	60.	35.	-26.	-0.	-0.	-0.	.0001	.0001	-.0000	.0000	-.0000	.0000
8	70	8.	9.	-6.	0.	0.	0.	.0001	.0001	-.0000	-.0000	-.0000	-.0000
9	65	-1.	2.	-1.	0.	0.	0.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
10	87	-34.	-47.	19.	-364.	1281.	1759.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	6.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	-14.	117.	-21.	0.	0.	0.	-.0001	.0000	-.0001	.0000	-.0000	-.0000
20	175	-3.	17.	-4.	0.	-0.	-0.	-.0001	.0000	-.0001	.0000	.0000	.0000
21	190	-1.	-30.	4.	-0.	-0.	-0.	-.0000	-.0011	.0001	.0000	.0000	.0000
22	205	-0.	-15.	2.	0.	-0.	-0.	-.0000	-.0000	.0001	.0000	.0000	.0000
23	220	1.	6.	0.	0.	-0.	-0.	.0000	.0001	.0000	.0000	.0000	.0000
24	240	9.	-1.	0.	-0.	-0.	0.	.0002	-.0000	.0000	.0000	-.0000	.0000
25	255	-5.	2.	2.	0.	0.	0.	-.0000	.0000	.0000	-.0000	-.0000	.0000

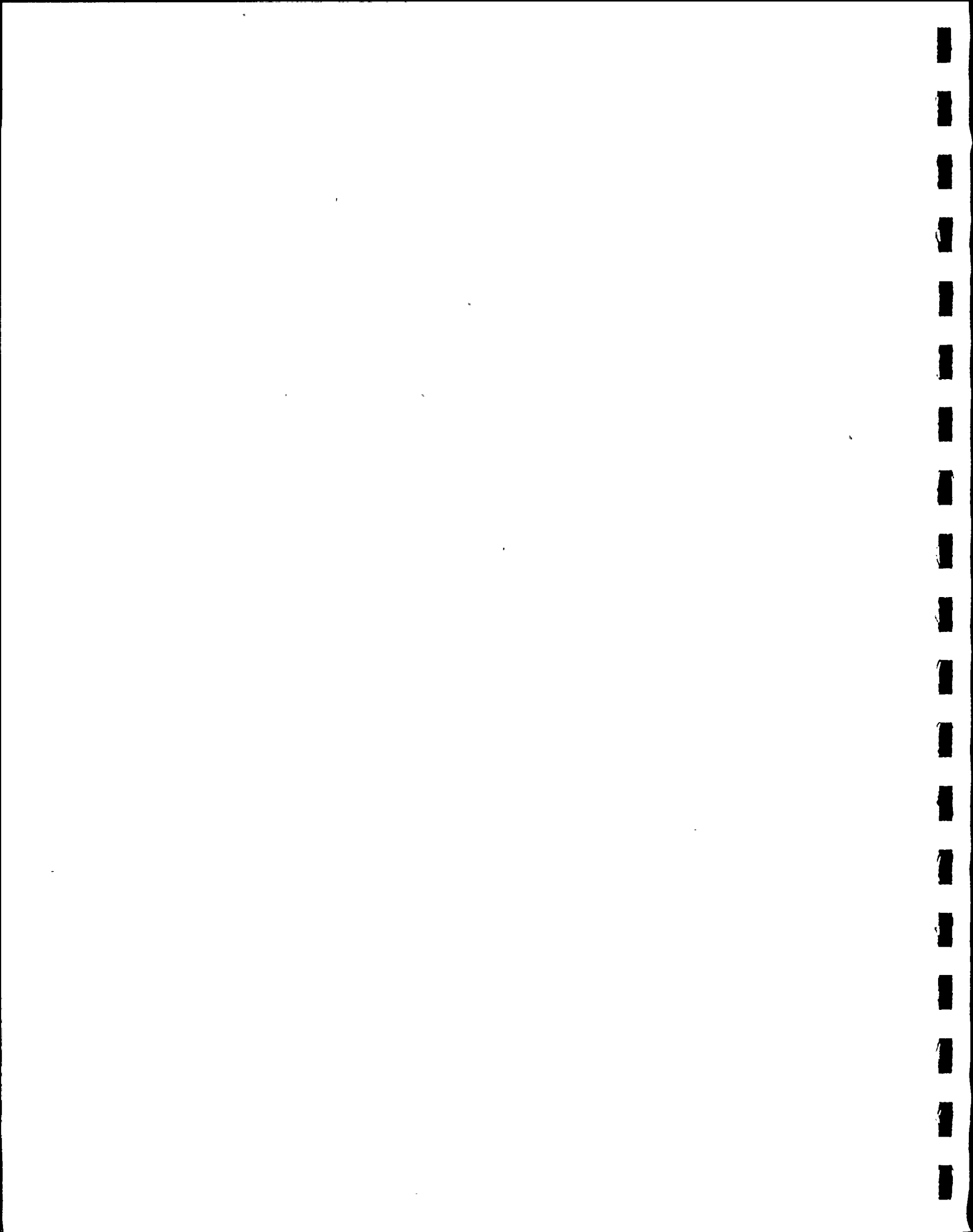
ADLPIPE PAGE 74

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHECK
MCDE 10 FREQUENCY 10.09

NET PT SEC	FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS								
				HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)

ADLPIPE PAGE 75

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHECK

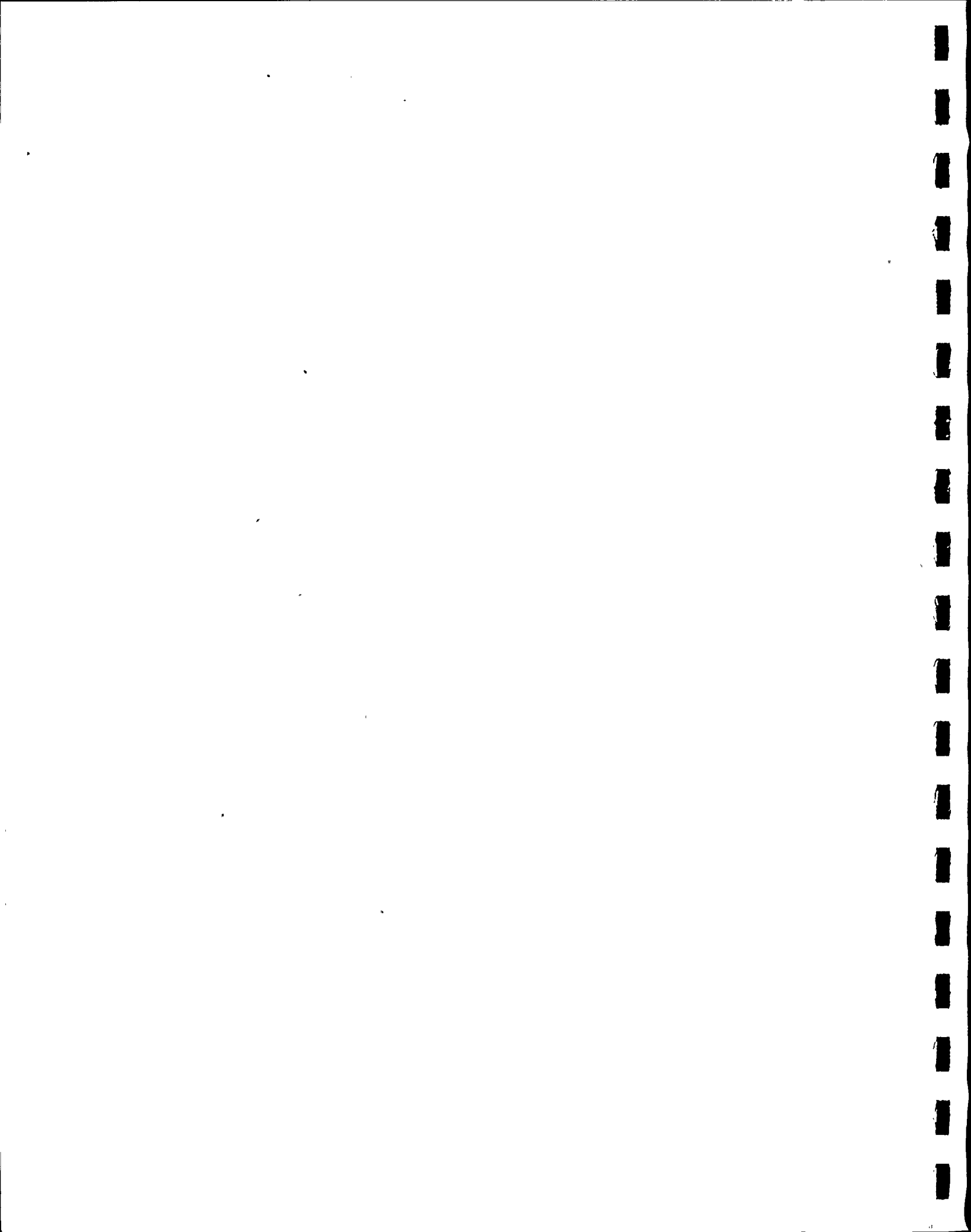


ADLPIPE PAGE 75

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

DYNAMIC PIPE STRESS ANALYSIS, NODE 11, FREQUENCY 21.27

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM



ADLPIPE PAGE 76

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE 12, FREQUENCY 23.56

NINE MILE POWER STAT MODEL 1 X SHOCK

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 77

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 X SHOCK

DYNAMIC PIPE STRESS ANALYSIS, MODE 13, FREQUENCY 27.61

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 78

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 X SHOCK

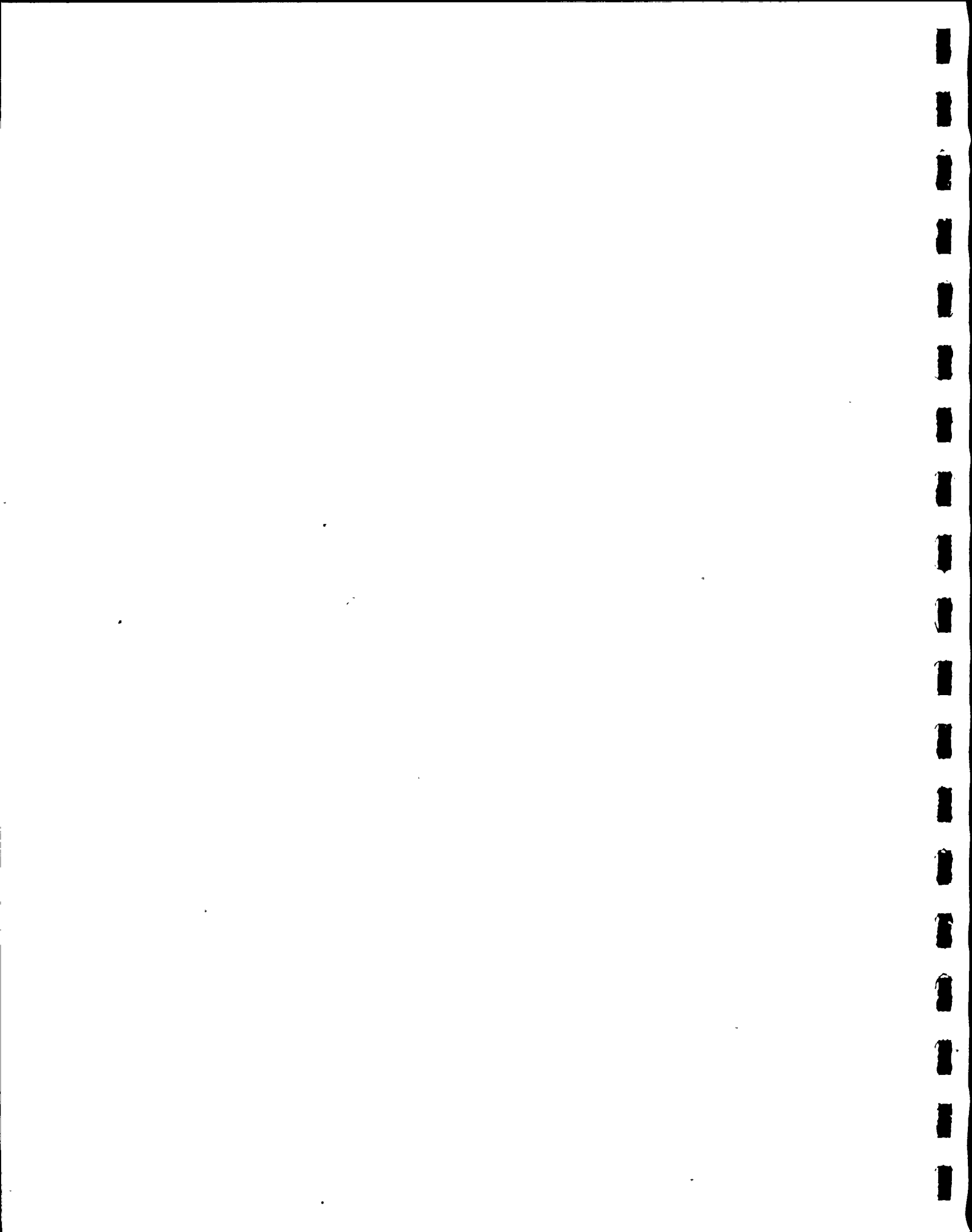
ADLPIPE PAGE 78

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 14, FREQUENCY 28.68

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 79

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK



ADLPIPE PAGE 79

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT. MODEL 1 X SHOCK

DYNAMIC PIPE STRESS ANALYSIS, NODE 15, FREQUENCY 31.57

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 80

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 16, FREQUENCY 32.32

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 81

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 81

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 17, FREQUENCY 38.57

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 82

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 82

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 18, FREQUENCY 41.84

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 83

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

ADLPIPE PAGE 83

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 19, FREQUENCY 47.39

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 84

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

LOADS
SHOCK

SC	NE	SEQ	POS	MODE 20 FREQUENCY			48.93			DX	DY	DZ	RX	RY	RZ
				FX (LB)	FY (LB)	FZ (LB)	NX (IN-LB)	MY (IN-LB)	MZ (IN-LB)						
1	1	5	BEG	-64.	-62.	72.	235.	-1825.	-2176.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	64.	62.	-72.	-198.	1779.	2188.	.0000	.0000	-.0000	-.0000	.0000	.0000
1	2	15	END	64.	62.	-72.	-714.	-1701.	-1279.	.0001	.0000	-.0000	.0000	.0000	.0000
2	1	15	BEG	-34.	-62.	59.	714.	1701.	1279.	.0001	.0000	-.0000	.0000	.0000	.0000
2	1	20	END	34.	62.	-59.	-1945.	-1701.	-1997.	.0001	.0000	-.0000	.0000	.0000	-.0000
3	1	20	BEG	14.	-63.	-2.	1921.	424.	2139.	.0001	.0000	-.0000	.0000	.0000	-.0000
3	1	25	END	-14.	63.	2.	-1853.	-424.	-1644.	.0000	.0000	-.0000	-.0000	.0000	-.0000
3	2	30	END	-14.	63.	2.	-1785.	-424.	-1150.	.0000	.0000	-.0000	-.0000	.0000	-.0000
4	1	30	BEG	37.	-61.	-29.	1785.	424.	1150.	.0000	.0000	-.0000	-.0000	.0000	-.0000
4	1	35	END	-37.	61.	29.	-740.	-424.	155.	.0000	.0000	-.0000	-.0000	.0000	-.0000
4	2	40	END	-37.	61.	29.	305.	-424.	1459.	-.0000	.0000	.0000	-.0000	-.0000	-.0000
5	1	40	BEG	18.	-57.	-27.	-305.	424.	-1459.	-.0000	.0000	.0000	-.0000	-.0000	-.0000
5	1	45	END	-18.	57.	27.	1259.	-424.	2092.	-.0000	.0000	.0000	-.0000	-.0000	-.0000
5	2	50	END	-18.	57.	27.	2213.	-424.	2725.	-.0000	.0000	.0000	-.0000	-.0000	.0000
6	1	50	BEG	-38.	-50.	15.	-2213.	424.	-2725.	-.0000	.0000	.0000	-.0000	-.0000	.0000
6	1	55	END	38.	50.	-15.	1328.	-424.	465.	-.0000	.0000	.0000	.0000	-.0000	.0000
6	2	57	END	38.	50.	-15.	369.	-424.	-1983.	.0000	.0000	-.0000	.0000	-.0000	.0000
7	1	57	BEG	13.	-17.	13.	-369.	424.	1983.	.0000	.0000	-.0000	.0000	-.0000	.0000
7	1	60	END	-13.	17.	-13.	-146.	-424.	-1473.	.0000	.0000	-.0000	.0000	-.0000	.0000
7	2	65	END	-13.	17.	-13.	-662.	-424.	-964.	.0000	.0000	-.0000	.0000	-.0000	-.0000
7	3	70	END	-13.	17.	-13.	-1100.	-424.	-531.	.0000	.0000	-.0001	.0000	-.0000	-.0000
8	1	70	BEG	26.	-7.	-38.	1100.	424.	531.	.0000	.0000	-.0001	.0000	-.0000	-.0000
8	1	75	END	-26.	7.	38.	-1078.	-424.	-515.	.0000	.0000	-.0001	.0000	-.0000	-.0000
8	2	80	END	-26.	7.	38.	549.	1139.	336.	.0000	-.0000	-.0000	.0000	-.0000	.0000

ADLPIPE PAGE 85

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT. MODEL 1 X SHGCK

ADLPIPE STRESS ANALYSIS

SC	NE	SEQ	POS	FX (LB)	EY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-26.	7.	38.	588.	1160.	332.	.0000	-.0000	-.0000	.0000	-.0000	.0000
9	1	85	BEG	30.	-12.	-75.	-588.	-1160.	-332.	.0000	-.0000	-.0000	.0000	-.0000	.0000
9	1	86	END	-30.	12.	75.	551.	3096.	4.	.0000	-.0000	-.0000	.0000	-.0000	.0000
9	2	87	END	-30.	12.	75.	-3340.	3096.	-1566.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 86

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT. MODEL 1 X SHGCK

ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 86

 ARTHUR D. LITTLE INC.
 NINE MILE CREEK STAT MODEL 1 X SHOCK
 HX MY MZ
 (IN-LB) (IN-LB) (IN-LB)

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-8.	3.	36.	24.	1277.	-141.	.0001	.0000	-.0000	.0000	.0000	-.0000
18	1	160	END	8.	-3.	-36.	-24.	-168.	52.	.0001	.0000	-.0001	.0000	-.0000	.0000
18	2	165	END	8.	-3.	-36.	-24.	942.	-24.	.0001	-.0000	-.0001	.0000	-.0000	.0000
18	3	167	END	8.	-3.	-36.	-24.	2394.	-133.	.0001	-.0000	-.0001	.0000	.0000	.0000
19	1	167	BEG	61.	-2.	-50.	24.	-2394.	133.	.0001	-.0000	-.0001	.0000	.0000	.0000
19	1	170	END	-61.	2.	50.	-24.	374.	-40.	.0001	-.0000	.0000	.0000	.0000	-.0000
19	2	175	END	-61.	2.	50.	-24.	-1647.	53.	.0001	.0000	.0002	.0000	.0000	-.0000
20	1	175	BEG	76.	-0.	7.	24.	1647.	-53.	.0001	.0000	.0002	.0000	.0000	-.0000
20	1	180	END	-76.	0.	-7.	-24.	-1359.	70.	.0001	.0000	.0002	-.0000	-.0000	-.0000
20	2	185	END	-76.	0.	-7.	-24.	-1222.	76.	.0000	.0000	.0002	-.0000	-.0000	.0000
20	3	190	END	-76.	0.	-7.	-4.	529.	-28.	-.0001	.0000	.0001	-.0000	-.0000	.0000
21	1	190	BEG	59.	1.	30.	4.	-529.	28.	-.0001	.0000	.0001	-.0000	-.0000	.0000
21	1	195	END	-59.	-1.	-30.	-4.	509.	-29.	-.0001	.0000	.0001	-.0000	-.0000	.0000
21	2	200	END	-59.	-1.	-30.	-4.	570.	-31.	-.0001	.0000	.0001	-.0000	-.0000	.0000
21	3	205	END	-59.	-1.	-30.	20.	1170.	-98.	-.0002	.0000	.0001	-.0000	.0000	-.0000
22	1	205	BEG	35.	2.	49.	-20.	-1170.	98.	-.0002	.0000	.0001	-.0000	.0000	-.0000
22	1	210	END	-35.	-2.	-49.	20.	657.	-73.	-.0002	.0000	.0001	-.0000	.0000	-.0000
22	2	215	END	-35.	-2.	-49.	20.	143.	-49.	-.0002	.0000	.0001	-.0000	.0000	-.0000
22	3	220	END	-35.	-2.	-49.	-29.	-146.	0.	-.0001	-.0000	-.0000	-.0000	.0000	-.0000
23	1	220	BEG	-0.	-0.	46.	29.	146.	0.	-.0001	-.0000	-.0000	-.0000	.0000	-.0000
23	1	225	END	0.	0.	-46.	-21.	-153.	-0.	-.0001	-.0000	-.0000	-.0000	.0000	-.0000
23	2	230	END	0.	0.	-46.	-3.	-170.	-0.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000

ADLPIPE PAGE 87

 ARTHUR D. LITTLE INC.
 NINE MILE CREEK STAT MODEL 1 X SHOCK
 HX MY MZ
 (IN-LB) (IN-LB) (IN-LB)

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 87

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	0.	0.	-46.	12.	-186.	-0.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000
23	4	240	END	0.	0.	-46.	32.	-202.	-0.	.0000	.0000	-.0000	-.0000	.0000	-.0000
24	1	240	BEG	2.	0.	39.	-32.	202.	0.	.0000	.0000	-.0000	-.0000	.0000	-.0000
24	1	245	END	-2.	-0.	-39.	21.	-135.	0.	.0000	.0000	-.0000	.0000	.0000	-.0000
24	2	250	END	-2.	-0.	-39.	11.	-67.	0.	.0000	.0000	-.0000	.0000	-.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0000	-.0000	-.0000
24	3	255	END	-2.	-0.	-39.	0.	0.	0.	-.0000	-.0000	-.0000	.0000	-.0000	-.0000

ADLPIPE PAGE 88

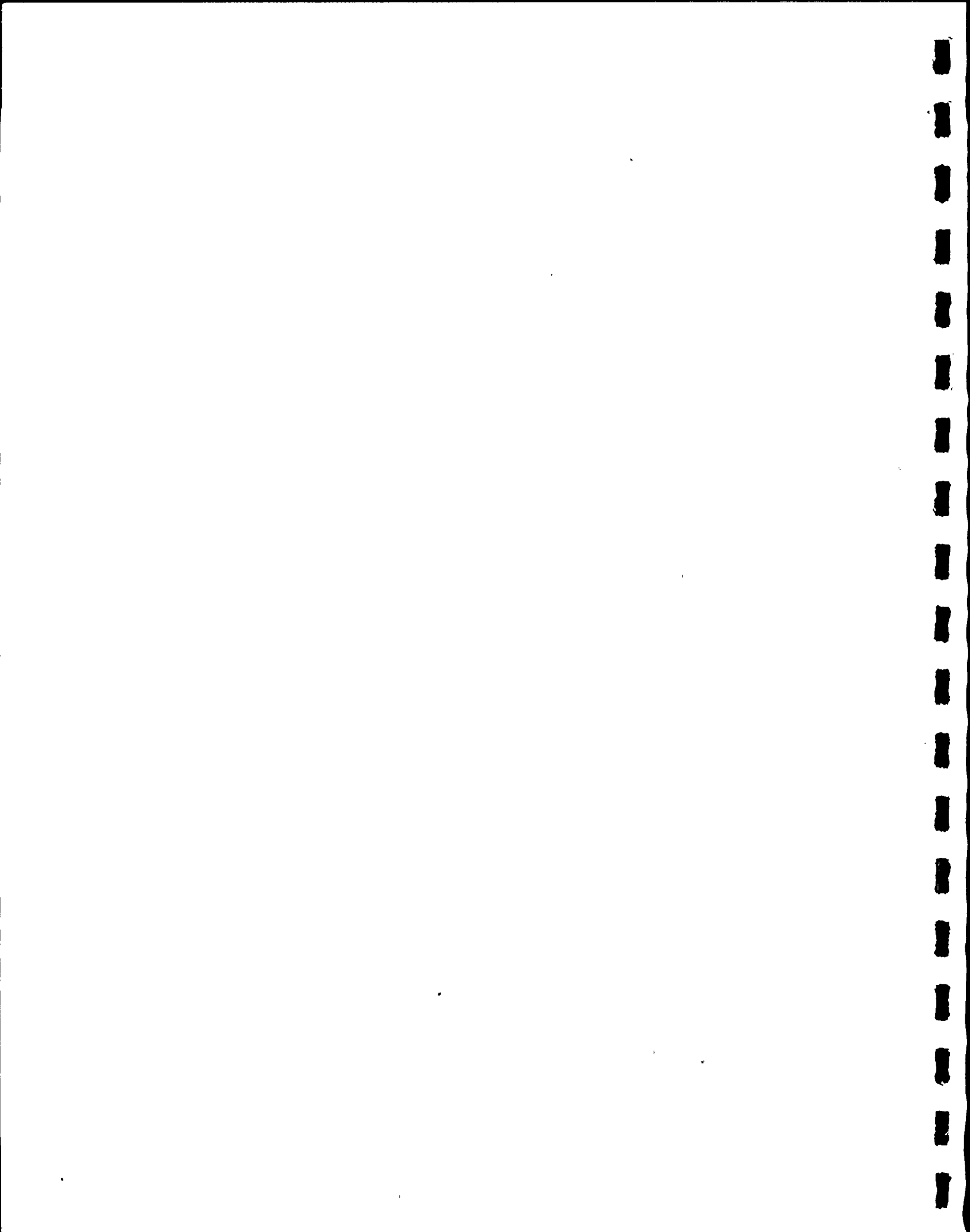
ARTHUR D. LITTLE INC.

NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

MODEL 1 X SHOCK

NET PT	SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS											
		FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	-60.	-62.	72.	235.	-1825.	-2178.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	30.	0.	-13.	-0.	-0.	-0.	.0001	.0000	-.0000	.0000	.0000	.0000
3	20	40.	1.	-25.	-0.	0.	0.	.0001	.0000	-.0000	.0000	.0000	-.0000
4	30	23.	2.	-27.	0.	-0.	0.	.0000	.0000	-.0000	-.0000	.0000	-.0000
5	40	-19.	4.	3.	0.	0.	0.	-.0000	.0000	.0000	-.0000	-.0000	-.0000
6	50	-55.	8.	42.	0.	0.	-0.	-.0000	.0000	.0000	-.0000	-.0000	.0000
7	57	51.	33.	-2.	-0.	-0.	-0.	.0000	.0000	-.0000	.0000	-.0000	.0000
8	70	13.	9.	-51.	-0.	0.	0.	.0000	.0000	-.0001	.0000	-.0000	-.0000
9	85	4.	-5.	-37.	0.	0.	-0.	.0000	-.0000	-.0000	.0000	-.0000	.0000
10	87	-30.	12.	75.	-3340.	3098.	-1566.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	69.	-5.	-86.	0.	-0.	0.	.0001	-.0000	-.0001	.0000	.0000	.0000
20	175	15.	2.	58.	-0.	-0.	0.	.0001	.0000	.0002	.0000	.0000	-.0000
21	190	-17.	1.	23.	0.	0.	-0.	-.0001	.0000	.0001	-.0000	-.0000	.0000
22	205	-24.	1.	19.	-0.	0.	0.	-.0002	.0000	.0001	-.0000	.0000	-.0000
23	220	-36.	-3.	-3.	-0.	-0.	0.	-.0001	-.0000	-.0000	-.0000	.0000	-.0000
24	240	2.	1.	-6.	0.	-0.	-0.	.0000	.0000	-.0000	-.0000	.0000	-.0000
25	255	-2.	-0.	-39.	0.	0.	0.	-.0000	-.0000	-.0000	.0000	-.0000	-.0000



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCDEL 1 X SHOCK
MCDE 20 FREQUENCY 48.93

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS			DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
	FX (LB)	FY (LB)	FZ (LB)						

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCDEL 1 X SHOCK

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	1	5	BEG											
			SQ,RT,SUM OF SQ	4915.	6260.	3863.	155010.	157574.	340962.	0.000	0.000	0.000	0.0000	0.0000
1	1	10	END											
			SQ,RT,SUM OF SQ	4915.	6260.	3863.	154215.	154904.	340312.	.000	.000	.000	.0000	.0000
1	2	10	BEG											
			SQ,RT,SUM OF SQ	4915.	6260.	3863.	154215.	154904.	340312.	.000	.000	.000	.0000	.0000
1	2	15	END											
			SQ,RT,SUM OF SQ	4915.	6260.	3863.	123883.	107291.	82555.	.012	.006	.008	.0003	.0002
2	1	15	BEG											
			SQ,RT,SUM OF SQ	4747.	6256.	3760.	123883.	107291.	82555.	.012	.006	.008	.0003	.0002
2	1	20	END											
			SQ,RT,SUM OF SQ	4747.	6256.	3760.	69591.	107291.	55457.	.016	.006	.014	.0003	.0002
3	1	20	BEG											
			SQ,RT,SUM OF SQ	3345.	6100.	3308.	76626.	81877.	90694.	.018	.006	.014	.0003	.0002
3	1	25	END											
			SQ,RT,SUM OF SQ	3345.	6100.	3308.	104875.	81877.	98756.	.027	.006	.025	.0003	.0002
3	2	25	BEG											
			SQ,RT,SUM OF SQ	3345.	6100.	3308.	104875.	81877.	98756.	.027	.006	.025	.0003	.0002
3	2	30	END											
			SQ,RT,SUM OF SQ	3345.	6100.	3308.	209358.	81877.	199018.	.036	.006	.035	.0003	.0002
4	1	30	BEG											
			SQ,RT,SUM OF SQ	2593.	6094.	2603.	209358.	81877.	199018.	.036	.006	.035	.0003	.0002
4	1	35	END											
			SQ,RT,SUM OF SQ	2593.	6094.	2603.	298010.	81877.	286358.	.044	.006	.043	.0002	.0002
4	2	35	BEG											
			SQ,RT,SUM OF SQ	2593.	6094.	2603.	298010.	81877.	286358.	.044	.006	.043	.0002	.0002
4	2	40	END											
			SQ,RT,SUM OF SQ	2593.	6094.	2603.	388515.	81877.	376064.	.050	.006	.050	.0002	.0002
5	1	40	BEG											
			SQ,RT,SUM OF SQ	1556.	6087.	1572.	388515.	81877.	376064.	.050	.006	.050	.0002	.0002
5	1	45	END											
			SQ,RT,SUM OF SQ	1556.	6087.	1572.	443021.	81877.	429786.	.054	.006	.055	.0001	.0002
5	2	45	BEG											
			SQ,RT,SUM OF SQ	1556.	6087.	1572.	443021.	81877.	429786.	.054	.006	.055	.0001	.0002

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
5	2	50 END												
SQ,RT, SUM	CF	SQ	1556.	6087.	1572.	497041.	81877.	483877.	.055	.006	.057	.0000	.0002	.0000
6	1	50 BEG												
SQ,RT, SUM	CF	SQ	342.	6073.	295.	497041.	81877.	483877.	.055	.006	.057	.0000	.0002	.0000
6	1	55 END												
SQ,RT, SUM	CF	SQ	342.	6073.	295.	483285.	81877.	476798.	.051	.006	.054	.0001	.0002	.0001
6	2	55 BEG												
SQ,RT, SUM	CF	SQ	342.	6073.	295.	483285.	81877.	476798.	.051	.006	.054	.0001	.0002	.0001
6	2	57 END												
SQ,RT, SUM	CF	SQ	342.	6073.	295.	467761.	81877.	457250.	.041	.006	.045	.0002	.0002	.0002
7	1	57 BEG												
SQ,RT, SUM	CF	SQ	4559.	6030.	4945.	467761.	81877.	457250.	.041	.006	.045	.0002	.0002	.0002
7	1	60 END												
SQ,RT, SUM	CF	SQ	4559.	6030.	4945.	271830.	81877.	279074.	.032	.006	.036	.0002	.0002	.0003
7	2	60 BEG												
SQ,RT, SUM	CF	SQ	4559.	6030.	4945.	271830.	81877.	279074.	.032	.006	.036	.0002	.0002	.0003
7	2	65 END												
SQ,RT, SUM	CF	SQ	4559.	6030.	4945.	75960.	81877.	109382.	.021	.006	.025	.0003	.0002	.0003
7	3	65 BEG												
SQ,RT, SUM	CF	SQ	4559.	6030.	4945.	75960.	81877.	109382.	.021	.006	.025	.0003	.0002	.0003
7	3	70 END												
SQ,RT, SUM	CF	SQ	4559.	6030.	4945.	90619.	81877.	85091.	.010	.006	.015	.0003	.0002	.0003
8	1	70 BEG												
SQ,RT, SUM	CF	SQ	4822.	6018.	5354.	90619.	81877.	85091.	.010	.006	.015	.0003	.0002	.0003
8	1	75 END												
SQ,RT, SUM	CF	SQ	4822.	6018.	5354.	93028.	81877.	87172.	.010	.006	.015	.0003	.0002	.0003
8	2	75 BEG												
SQ,RT, SUM	CF	SQ	4822.	6018.	5354.	93028.	81877.	87172.	.010	.006	.015	.0003	.0002	.0003
8	2	80 END												
SQ,RT, SUM	CF	SQ	4822.	6018.	5354.	310640.	175931.	201886.	.000	.001	.001	.0000	.0000	.0000
8	3	80 BEG												
SQ,RT, SUM	CF	SQ	4822.	6018.	5354.	310640.	175931.	201886.	.000	.001	.001	.0000	.0000	.0000
8	3	85 END												
SQ,RT, SUM	CF	SQ	4822.	6018.	5354.	310327.	179026.	202937.	.000	.001	.001	.0000	.0000	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK

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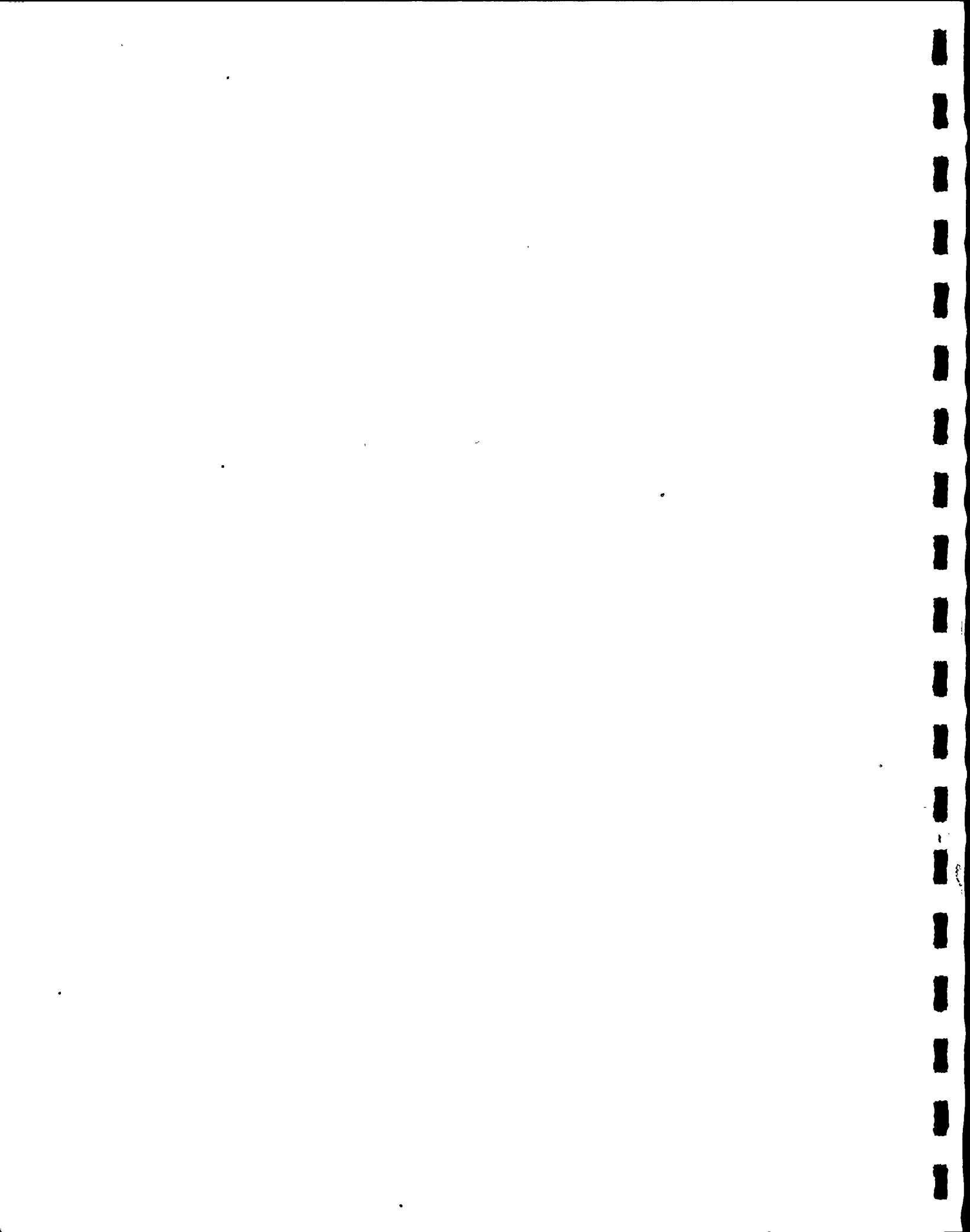
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
9	1	85	BEG											
			SQ. RT. SUM OF SQ	4853.	6071.	5413.	310327.	179026.	202937.	.000	.001	.001	.0000	.0000 .0000
9	1	86	END											
			SQ. RT. SUM OF SQ	4853.	6071.	5413.	295715.	323882.	297673.	.000	.000	.000	.0000	.0000 .0000
9	2	86	BEG											
			SQ. RT. SUM OF SQ	4853.	6071.	5413.	295715.	323882.	297673.	.000	.000	.000	.0000	.0000 .0000
9	2	87	END											
			SQ. RT. SUM OF SQ	4853.	6071.	5413.	29642.	323882.	374242.	.000	.000	.000	.0000	.0000 .0000
10	1	87	BEG											
			SQ. RT. SUM OF SQ	2824.	1799.	2048.	85247.	149793.	42649.	0.000	0.000	0.000	0.0000	0.0000 0.0000
10	1	88	END											
			SQ. RT. SUM OF SQ	2824.	1799.	2048.	92902.	156431.	95573.	.000	.000	.000	.0000	.0000 .0000
10	2	88	BEG											
			SQ. RT. SUM OF SQ	2824.	1799.	2048.	92902.	156431.	95573.	.000	.000	.000	.0000	.0000 .0000
10	2	90	END											
			SQ. RT. SUM OF SQ	2824.	1799.	2048.	62104.	78109.	104702.	.000	.000	.000	.0000	.0000 .0000
11	1	90	BEG											
			SQ. RT. SUM OF SQ	2774.	1777.	2041.	62104.	78109.	104702.	.000	.000	.000	.0000	.0000 .0000
11	1	95	END											
			SQ. RT. SUM OF SQ	2774.	1777.	2041.	61789.	76578.	104883.	.000	.000	.000	.0000	.0000 .0000
11	2	95	BEG											
			SQ. RT. SUM OF SQ	2774.	1777.	2041.	61789.	76578.	104883.	.000	.000	.000	.0000	.0000 .0000
11	2	100	END											
			SQ. RT. SUM OF SQ	2774.	1777.	2041.	22522.	45198.	6396.	.005	.002	.003	.0001	.0001 .0001
12	1	100	BEG											
			SQ. RT. SUM OF SQ	2106.	1854.	1709.	22522.	45198.	6396.	.005	.002	.003	.0001	.0001 .0001
12	1	105	END											
			SQ. RT. SUM OF SQ	2106.	1854.	1709.	40165.	45198.	37700.	.006	.002	.004	.0001	.0001 .0001
12	2	105	BEG											
			SQ. RT. SUM OF SQ	2106.	1854.	1709.	40165.	45198.	37700.	.006	.002	.004	.0001	.0001 .0001
12	2	107	END											
			SQ. RT. SUM OF SQ	2106.	1854.	1709.	130050.	45198.	153472.	.010	.002	.008	.0001	.0001 .0001
13	1	107	BEG											
			SQ. RT. SUM OF SQ	339.	1983.	435.	130050.	45198.	153472.	.010	.002	.008	.0001	.0001 .0001

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC MEM POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
13 1 110 END SQ,RT,SUM OF SQ	339.	1983.	435.	144517.	45198.	165492.	.011	.002	.010	.0006	.0000	.0000
13 2 110 BEG SQ,RT,SUM OF SQ	339.	1983.	435.	144517.	45198.	165492.	.011	.002	.010	.0006	.0000	.0000
13 2 115 END SQ,RT,SUM OF SQ	339.	1983.	435.	159163.	45198.	177513.	.012	.002	.011	.0000	.0000	.0000
14 1 115 BEG SQ,RT,SUM OF SQ	562.	2041.	324.	159163.	45198.	177513.	.012	.002	.011	.0000	.0000	.0000
14 1 120 END SQ,RT,SUM OF SQ	562.	2041.	324.	147962.	45198.	157679.	.012	.002	.011	.0000	.0000	.0000
14 2 120 BEG SQ,RT,SUM OF SQ	562.	2041.	324.	147962.	45198.	157679.	.012	.002	.011	.0000	.0000	.0000
14 2 125 END SQ,RT,SUM OF SQ	562.	2041.	324.	136808.	45198.	137873.	.010	.002	.010	.0000	.0000	.0000
15 1 125 BEG SQ,RT,SUM OF SQ	1475.	2109.	1133.	136808.	45198.	137873.	.010	.002	.010	.0000	.0000	.0000
15 1 130 END SQ,RT,SUM OF SQ	1475.	2109.	1133.	82436.	45198.	67737.	.007	.002	.008	.0001	.0000	.0001
15 2 130 BEG SQ,RT,SUM OF SQ	1475.	2109.	1133.	82436.	45198.	67737.	.007	.002	.008	.0001	.0000	.0001
15 2 135 END SQ,RT,SUM OF SQ	1475.	2109.	1133.	28080.	45198.	13689.	.004	.002	.005	.0001	.0000	.0001
16 1 135 BEG SQ,RT,SUM OF SQ	1804.	2176.	1536.	28080.	45198.	13689.	.004	.002	.005	.0001	.0000	.0001
16 1 140 END SQ,RT,SUM OF SQ	1804.	2176.	1536.	8347.	45198.	30414.	.003	.002	.004	.0001	.0000	.0001
16 2 140 BEG SQ,RT,SUM OF SQ	1804.	2176.	1536.	8347.	45198.	30414.	.003	.002	.004	.0001	.0000	.0001
16 2 145 END SQ,RT,SUM OF SQ	1804.	2176.	1536.	98161.	34512.	57857.	.000	.000	.000	.0000	.0000	.0000
16 3 145 BEG SQ,RT,SUM OF SQ	1804.	2176.	1536.	98161.	34512.	57857.	.000	.000	.000	.0000	.0000	.0000
16 3 150 END SQ,RT,SUM OF SQ	1804.	2176.	1536.	99157.	35477.	57411.	.000	.000	.000	.0000	.0000	.0000



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 X SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
17	1	150	BEG											
SQ,RT,SUM	OF	SQ	1814.	2197.	1558.	99157.	35477.	57411.	.000	.000	.000	.0000	.0000	.0000
17	1	155	END											
SQ,RT,SUM	OF	SQ	1814.	2197.	1558.	155131.	99127.	53797.	.000	.000	.000	.0000	.0000	.0000
18	1	20	BEG											
SQ,RT,SUM	OF	SQ	1111.	699.	482.	9708.	74056.	141678.	.018	.006	.014	.0003	.0002	.0003
18	1	160	END											
SQ,RT,SUM	OF	SQ	1111.	699.	482.	9708.	64433.	120678.	.018	.006	.017	.0003	.0002	.0003
18	2	160	BEG											
SQ,RT,SUM	OF	SQ	1111.	699.	482.	9708.	64433.	120678.	.018	.006	.017	.0003	.0002	.0003
18	2	165	END											
SQ,RT,SUM	OF	SQ	1111.	699.	482.	9708.	57122.	99936.	.018	.014	.019	.0003	.0002	.0004
18	3	165	BEG											
SQ,RT,SUM	OF	SQ	1111.	699.	482.	9708.	57122.	99936.	.018	.014	.019	.0003	.0002	.0004
18	3	167	END											
SQ,RT,SUM	OF	SQ	1111.	699.	482.	9708.	52640.	73541.	.018	.030	.025	.0002	.0002	.0004
19	1	167	BEG											
SQ,RT,SUM	OF	SQ	584.	591.	488.	9708.	52640.	73541.	.018	.030	.025	.0002	.0002	.0004
19	1	170	END											
SQ,RT,SUM	OF	SQ	584.	591.	488.	9708.	33916.	49869.	.018	.048	.033	.0002	.0003	.0005
19	2	170	BEG											
SQ,RT,SUM	OF	SQ	584.	591.	488.	9708.	33916.	49869.	.018	.048	.033	.0002	.0003	.0005
19	2	175	END											
SQ,RT,SUM	OF	SQ	584.	591.	488.	9708.	17216.	26283.	.018	.070	.042	.0002	.0003	.0006
20	1	175	BEG											
SQ,RT,SUM	OF	SQ	466.	482.	546.	9708.	17216.	26283.	.018	.070	.042	.0002	.0003	.0006
20	1	180	END											
SQ,RT,SUM	OF	SQ	466.	482.	546.	9708.	13825.	7496.	.018	.094	.054	.0002	.0003	.0006
20	2	180	BEG											
SQ,RT,SUM	OF	SQ	466.	482.	546.	9708.	13825.	7496.	.018	.094	.054	.0002	.0003	.0006
20	2	185	END											
SQ,RT,SUM	OF	SQ	466.	482.	546.	9708.	21879.	4052.	.018	.106	.059	.0002	.0003	.0006
20	3	185	BEG											
SQ,RT,SUM	OF	SQ	466.	482.	546.	9708.	21879.	4052.	.018	.106	.059	.0002	.0003	.0006

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL X SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC MEM. POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
20 3 190 END SQ. RT. SUM OF SQ	466.	482.	546.	13078.	26741.	13348.	.020	.117	.065	.0002	.0002	.0006
21 1 190 BEG SQ. RT. SUM OF SQ	358.	293.	550.	13078.	26741.	13348.	.020	.117	.065	.0002	.0002	.0006
21 1 195 END SQ. RT. SUM OF SQ	358.	293.	550.	13152.	26686.	13353.	.020	.117	.065	.0002	.0002	.0006
21 2 195 BEG SQ. RT. SUM OF SQ	358.	293.	550.	13152.	26686.	13353.	.020	.117	.065	.0002	.0002	.0006
21 2 200 END SQ. RT. SUM OF SQ	358.	293.	550.	13229.	26631.	13357.	.020	.117	.065	.0002	.0002	.0006
21 3 200 BEG SQ. RT. SUM OF SQ	358.	293.	550.	13229.	26631.	13357.	.020	.117	.065	.0002	.0002	.0006
21 3 205 END SQ. RT. SUM OF SQ	358.	293.	550.	18398.	15248.	7528.	.024	.104	.063	.0002	.0002	.0006
22 1 205 BEG SQ. RT. SUM OF SQ	260.	179.	547.	18398.	15248.	7528.	.024	.104	.063	.0002	.0002	.0006
22 1 210 END SQ. RT. SUM OF SQ	260.	179.	547.	18398.	12587.	5646.	.024	.098	.063	.0002	.0002	.0006
22 2 210 BEG SQ. RT. SUM OF SQ	260.	179.	547.	18398.	12587.	5646.	.024	.098	.063	.0002	.0002	.0006
22 2 215 END SQ. RT. SUM OF SQ	260.	179.	547.	18398.	12264.	3764.	.024	.092	.063	.0002	.0002	.0006
22 3 215 BEG SQ. RT. SUM OF SQ	260.	179.	547.	18398.	12264.	3764.	.024	.092	.063	.0002	.0002	.0006
22 3 220 END SQ. RT. SUM OF SQ	260.	179.	547.	21559.	23017.	0.	.025	.077	.063	.0002	.0001	.0006
23 1 220 BEG SQ. RT. SUM OF SQ	49.	38.	483.	21559.	23017.	0.	.025	.077	.063	.0002	.0001	.0006
23 1 225 END SQ. RT. SUM OF SQ	49.	38.	483.	21223.	23353.	0.	.026	.073	.063	.0002	.0001	.0006
23 2 225 BEG SQ. RT. SUM OF SQ	49.	38.	483.	21223.	23353.	0.	.026	.073	.063	.0002	.0001	.0006
23 2 230 END SQ. RT. SUM OF SQ	49.	38.	483.	20504.	24200.	0.	.025	.063	.063	.0003	.0000	.0006

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 X SHOCK

MC0AL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MC0ES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	230	BEG											
			SQ,RT,SUM OF SQ	49.	38.	483.	20504.	24200.	0.	.025	.063	.063	.0003	.0000
23	3	235	END											
			SQ,RT,SUM OF SQ	49.	38.	483.	19859.	25150.	0.	.023	.053	.063	.0003	.0001
23	4	235	BEG											
			SQ,RT,SUM OF SQ	49.	38.	483.	19859.	25150.	0.	.023	.053	.063	.0003	.0001
23	4	240	END											
			SQ,RT,SUM OF SQ	49.	38.	483.	19294.	26192.	0.	.020	.041	.063	.0003	.0001
24	1	240	BEG											
			SQ,RT,SUM OF SQ	234.	172.	399.	19294.	26192.	0.	.020	.041	.063	.0003	.0001
24	1	245	END											
			SQ,RT,SUM OF SQ	234.	172.	399.	12863.	17461.	0.	.014	.028	.063	.0004	.0002
24	2	245	BEG											
			SQ,RT,SUM OF SQ	234.	172.	399.	12863.	17461.	0.	.014	.028	.063	.0004	.0002
24	2	250	END											
			SQ,RT,SUM OF SQ	234.	172.	399.	6431.	8731.	0.	.007	.014	.063	.0004	.0002
24	3	250	BEG											
			SQ,RT,SUM OF SQ	234.	172.	399.	6431.	8731.	0.	.007	.014	.063	.0004	.0002
24	3	255	DIS											
			SQ,RT,SUM OF SQ	0.	0.	0.	0.	0.	0.	.000	.000	.063	.0004	.0002
24	3	255	END											
			SQ,RT,SUM OF SQ	234.	172.	399.	0.	0.	0.	.000	.000	.063	.0004	.0002

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STATION MODEL 1 X SHOCK

RMS MODAL SUMMARY
 NETWORK POINT REACTIONS AND DEFLECTIONS

NET PT SEQ	F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	4915.	6260.	3863.	155010.	157574.	340962.	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	170.	69.	108.	0.	0.	0.	.0124	.0057	.0083	.0003	.0003
3	20	325.	92.	251.	0.	0.	0.	.0179	.0057	.0144	.0003	.0002
4	30	756.	107.	710.	0.	0.	0.	.0361	.0057	.0346	.0003	.0002
5	40	1047.	107.	1037.	0.	0.	0.	.0499	.0057	.0562	.0002	.0002
6	50	1757.	163.	1794.	0.	0.	0.	.0553	.0057	.0570	.0000	.0002
7	57	4338.	549.	4712.	0.	0.	0.	.0411	.0057	.0446	.0002	.0002
8	70	276.	142.	412.	0.	0.	0.	.0105	.0057	.0154	.0003	.0002
9	85	45.	55.	70.	0.	0.	0.	.0004	.0005	.0006	.0000	.0000
10	87	5615.	6332.	5768.	90253.	356644.	376664.	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	51.	26.	26.	0.	0.	0.	.0002	.0001	.0001	.0000	.0000
12	100	669.	214.	349.	0.	0.	0.	.0050	.0018	.0020	.0001	.0001
13	107	1767.	284.	1287.	0.	0.	0.	.0097	.0018	.0079	.0001	.0001
14	115	900.	114.	734.	0.	0.	0.	.0119	.0018	.0106	.0000	.0000
15	125	913.	132.	822.	0.	0.	0.	.0103	.0018	.0102	.0000	.0000
16	135	329.	130.	408.	0.	0.	0.	.0036	.0017	.0049	.0001	.0000
17	150	11.	22.	23.	0.	0.	0.	.0002	.0004	.0004	.0000	.0000
18	155	1814.	2197.	1558.	155131.	99127.	53797.	.0000	.0000	.0000	.0000	.0000
19	167	560.	271.	598.	0.	0.	0.	.0180	.0298	.0251	.0002	.0002
20	175	137.	124.	126.	0.	0.	0.	.0181	.0701	.0424	.0002	.0003
44 21	190	113.	195.	85.	0.	0.	0.	.0199	.1175	.0649	.0002	.0002
22	205	100.	120.	40.	0.	0.	0.	.0236	.1036	.0632	.0002	.0002
23	220	229.	187.	64.	0.	0.	0.	.0253	.0765	.0630	.0002	.0001
24	240	266.	162.	85.	0.	0.	0.	.0196	.0410	.0630	.0003	.0001
25	255	234.	172.	399.	0.	0.	0.	.0000	.0000	.0631	.0004	.0002

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

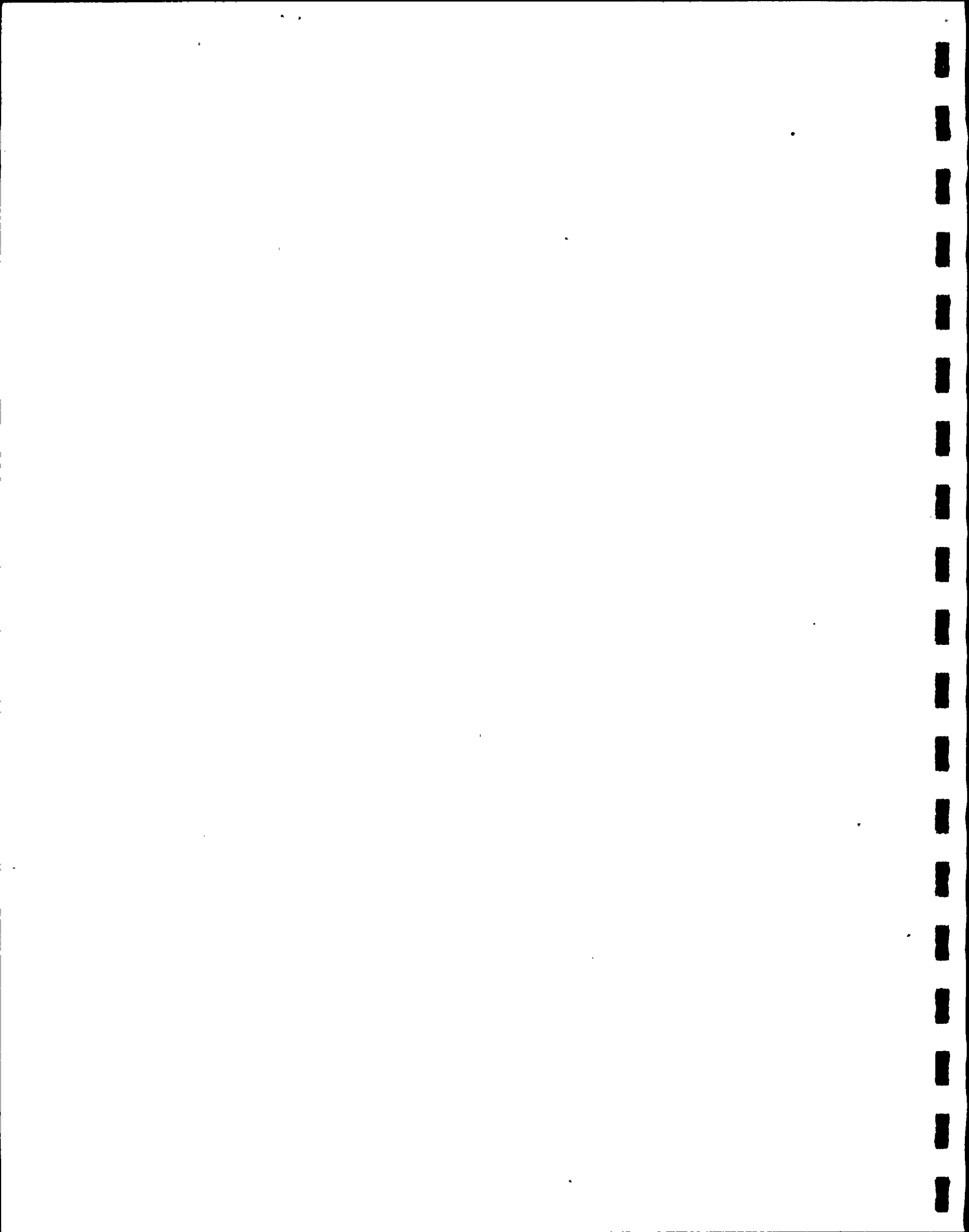
RMS MODAL SUMMARY

NETWORK POINT REACTIONS AND DEFLECTIONS

NET PT SEC	F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
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MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE.
USAS B31.1 STRESS SUMMARY

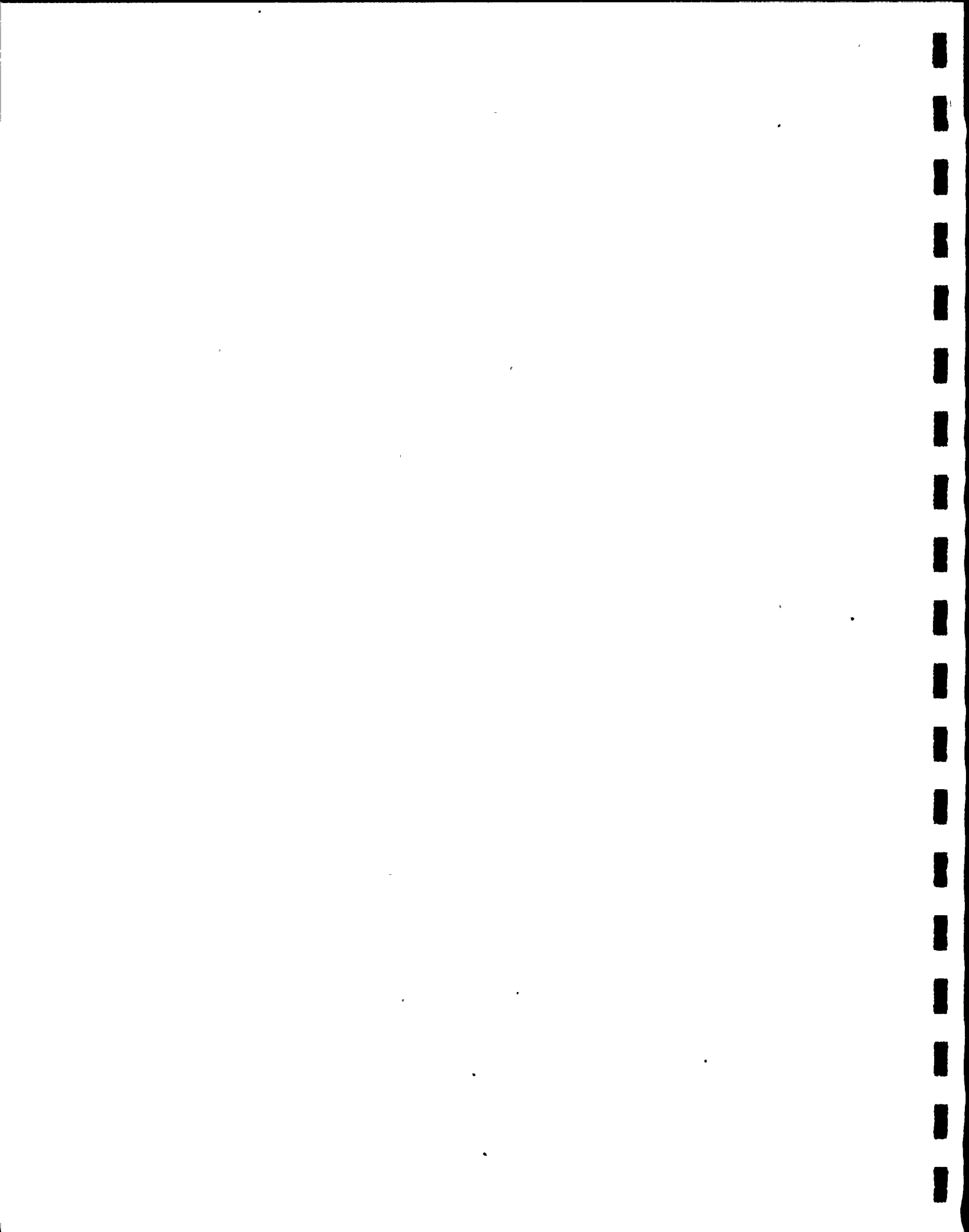
SEC	MEM	SEQ	PCS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
1	1	5	BEG	RU	316.7	306.7	703.8	0.0	1.000	1.000
		10	END	RU	316.0	302.0	700.5	0.0	1.000	1.000
1	2	10	BEG	EL	316.0	666.9	918.8	0.0	2.208	2.208
		15	END	EL	-92.9	569.3	598.9	0.0	2.208	2.208
2	1	15	BEG	RU	-92.9	257.8	317.8	0.0	1.000	1.000
		20	END	RU	-92.9	154.1	241.4	0.0	1.000	1.000
3	1	20	BEG	RU	-70.9	265.6	249.8	0.0	1.000	1.000
		25	END	RU	-70.9	249.5	267.0	0.0	1.000	1.000
3	2	25	BEG	RU	-70.9	249.5	287.0	0.0	1.000	1.000
		30	END	RU	-70.9	500.3	520.0	0.0	1.000	1.000
4	1	30	BEG	RU	-70.9	500.3	520.0	0.0	1.000	1.000
		35	END	RU	-70.9	715.8	729.7	0.0	1.000	1.000
4	2	35	BEG	RU	-70.9	715.8	729.7	0.0	1.000	1.000
		40	END	RU	-70.9	936.5	947.2	0.0	1.000	1.000
5	1	40	BEG	RU	-70.9	936.5	947.2	0.0	1.000	1.000
		45	END	RU	-70.9	1069.0	1078.4	0.0	1.000	1.000
5	2	45	BEG	RU	-70.9	1069.0	1078.4	0.0	1.000	1.000
		50	END	RU	-70.9	1202.4	1210.8	0.0	1.000	1.000
6	1	50	BEG	RU	-70.9	1202.4	1210.8	0.0	1.000	1.000
		55	END	RU	-70.9	1168.6	1177.1	0.0	1.000	1.000
6	2	55	BEG	RU	-34.7	572.7	576.9	0.0	1.000	1.000
		57	END	RU	-34.7	555.2	559.5	0.0	1.000	1.000
7	1	57	BEG	RU	-70.9	1132.9	1141.8	0.0	1.000	1.000
		60	END	RU	-70.9	674.7	689.5	0.0	1.000	1.000
7	2	60	BEG	RU	-70.9	674.7	689.5	0.0	1.000	1.000
		65	END	RU	-70.9	230.6	270.8	0.0	1.000	1.000
7	3	65	BEG	RU	-70.9	230.6	270.8	0.0	1.000	1.000
		70	END	RU	-70.9	215.3	257.8	0.0	1.000	1.000



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 X SHOCK

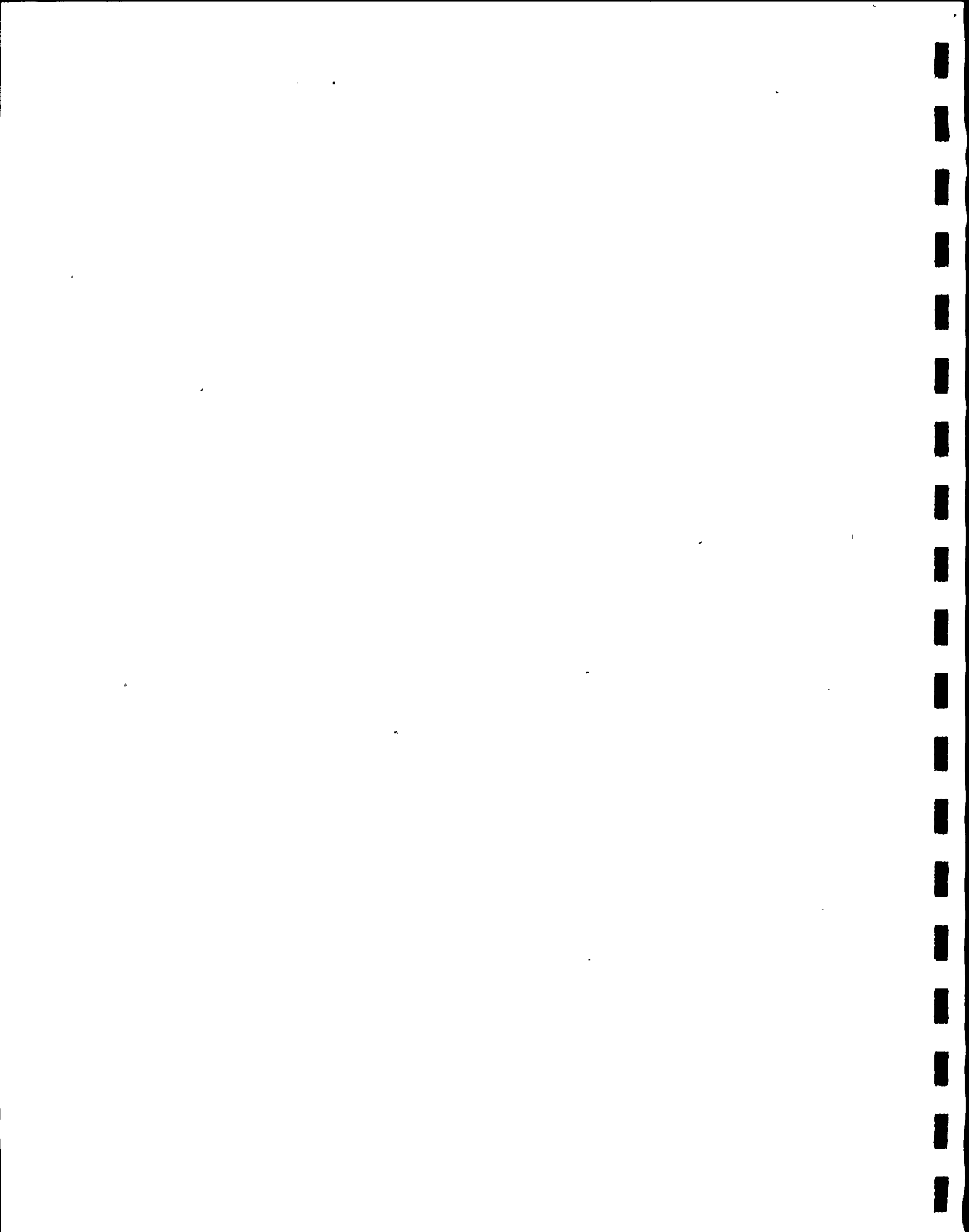
MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE.
USAS 831.1 STRESS SUMMARY

SEC	MEM	SEC	POS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
8	1	70	BEG	RU	-70.9	215.3	257.8	0.0	1.000	1.000
		75	END	RU	-70.9	221.8	263.3	0.0	1.000	1.000
8	2	75	BEG	EL	-70.9	489.8	509.9	0.0	2.208	2.208
		80	END	EL	248.3	1121.7	1226.7	0.0	2.208	2.208
8	3	80	BEG	RU	248.3	508.0	713.3	0.0	1.000	1.000
		85	END	RU	247.9	512.6	713.1	0.0	1.000	1.000
9	1	85	BEG	RU	54.5	113.3	157.3	0.0	1.000	1.000
		86	END	RU	49.7	176.4	202.5	0.0	1.000	1.000
9	2	86	BEG	RU	49.7	176.4	202.5	0.0	1.000	1.000
		87	END	RU	61.9	143.4	185.4	0.0	1.000	1.000
10	1	87	BEG	RU	17.5	58.1	67.8	0.0	1.000	1.000
		88	END	RU	20.7	66.7	78.5	0.0	1.000	1.000
10	2	88	BEG	RU	20.7	66.7	78.5	0.0	1.000	1.000
		90	END	RU	-17.6	42.6	55.2	0.0	1.000	1.000
11	1	90	BEG	RU	-79.7	193.3	250.5	0.0	1.000	1.000
		95	END	RU	-79.9	191.1	249.1	0.0	1.000	1.000
11	2	95	BEG	EL	-79.9	421.9	451.2	0.0	2.208	2.208
		100	END	EL	39.1	89.5	118.9	0.0	2.208	2.208
12	1	100	BEG	RU	39.1	40.5	88.2	0.0	1.000	1.000
		105	END	RU	39.1	95.4	123.4	0.0	1.000	1.000
12	2	105	BEG	RU	19.2	46.8	60.5	0.0	1.000	1.000
		107	END	RU	19.2	170.7	175.0	0.0	1.000	1.000
13	1	107	BEG	RU	39.1	348.4	357.1	0.0	1.000	1.000
		110	END	RU	39.1	380.5	388.5	0.0	1.000	1.000
13	2	110	BEG	RU	39.1	380.5	388.5	0.0	1.000	1.000
		115	END	RU	39.1	412.9	420.3	0.0	1.000	1.000
14	1	115	BEG	RU	39.1	412.9	420.3	0.0	1.000	1.000
		120	END	RU	39.1	374.5	382.6	0.0	1.000	1.000
14	2	120	BEG	RU	39.1	374.5	382.6	0.0	1.000	1.000
		125	END	RU	39.1	336.4	345.4	0.0	1.000	1.000



MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE.
USAS B31.1 STRESS SUMMARY

SEC	MEM	SEQ	PCS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
15	1	125	BEG	RU	39.1	336.4	345.4	0.0	1.000	1.000
		130	END	RU	39.1	184.8	200.7	0.0	1.000	1.000
15	2	130	BEG	RU	39.1	184.8	200.7	0.0	1.000	1.000
		135	END	RU	39.1	54.1	95.2	0.0	1.000	1.000
16	1	135	BEG	RU	39.1	54.1	95.2	0.0	1.000	1.000
		140	END	RU	39.1	54.6	95.5	0.0	1.000	1.000
16	2	140	BEG	EL	39.1	120.6	143.8	0.0	2.208	2.208
		145	END	EL	-88.1	236.7	295.1	0.0	2.208	2.208
16	3	145	BEG	RU	-88.1	107.2	206.2	0.0	1.000	1.000
		150	END	RU	-88.3	109.3	207.7	0.0	1.000	1.000
17	1	150	BEG	RU	-88.3	109.3	207.7	0.0	1.000	1.000
		155	END	RU	-111.2	246.7	332.2	0.0	1.000	1.000
18	1	20	BEG	RU	-49.3	1622.7	1625.7	0.0	1.000	1.000
		160	END	RU	-49.3	1388.6	1392.1	0.0	1.000	1.000
18	2	160	BEG	RU	-49.3	1388.6	1392.1	0.0	1.000	1.000
		165	END	RU	-49.3	1168.4	1172.6	0.0	1.000	1.000
18	3	165	BEG	RU	-19.2	455.7	457.3	0.0	1.000	1.000
		167	END	RU	-19.2	358.0	360.1	0.0	1.000	1.000
19	1	167	BEG	RU	-49.3	918.0	923.3	0.0	1.000	1.000
		170	END	RU	-49.3	612.2	620.0	0.0	1.000	1.000
19	2	170	BEG	RU	-49.3	612.2	620.0	0.0	1.000	1.000
		175	END	RU	-49.3	318.9	333.8	0.0	1.000	1.000
20	1	175	BEG	RU	-49.3	318.9	333.8	0.0	1.000	1.000
		180	END	RU	-49.3	159.6	167.6	0.0	1.000	1.000
20	2	180	BEG	RU	-49.3	159.6	167.6	0.0	1.000	1.000
		185	END	RU	-49.3	225.9	246.4	0.0	1.000	1.000
20	3	185	BEG	EL	-49.3	401.3	413.3	0.0	1.777	1.777
		190	END	EL	77.2	520.5	542.9	0.0	1.777	1.777
21	1	190	BEG	RU	76.9	293.2	331.1	0.0	1.000	1.000
		195	END	RU	76.9	293.1	331.0	0.0	1.000	1.000



MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE.
USAS 831.1 STRESS SUMMARY

SEC	MEM	SEQ	PCS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS IN PLANE TRANSVERSE
21	2	195	BEG	RU	76.9	293.1	331.0	0.0	1.000 1.000
		200	END	RU	77.3	292.6	330.9	0.0	1.000 1.000
21	3	200	BEG	EL	77.3	519.9	542.4	0.0	1.777 1.777
		205	END	EL	93.4	306.7	359.1	0.0	1.777 1.777
22	1	205	BEG	RU	93.4	172.6	254.3	0.0	1.000 1.000
		210	END	RU	93.4	140.0	233.4	0.0	1.000 1.000
22	2	210	BEG	RU	93.4	140.0	233.4	0.0	1.000 1.000
		215	END	RU	93.4	130.2	227.7	0.0	1.000 1.000
22	3	215	BEG	EL	93.4	231.4	297.4	0.0	1.777 1.777
		220	END	EL	.0	568.8	568.8	0.0	1.777 1.777
23	1	220	BEG	RU	.0	320.1	320.1	0.0	1.000 1.000
		225	END	RU	.0	320.3	320.3	0.0	1.000 1.000
23	2	225	BEG	RU	.0	320.3	320.3	0.0	1.000 1.000
		230	END	RU	.0	322.0	322.0	0.0	1.000 1.000
23	3	230	BEG	RU	.0	322.0	322.0	0.0	1.000 1.000
		235	END	RU	.0	329.3	325.3	0.0	1.000 1.000
23	4	235	BEG	RU	.0	325.3	325.3	0.0	1.000 1.000
		240	END	RU	.0	330.2	330.2	0.0	1.000 1.000
24	1	240	BEG	RU	0.0	330.2	330.2	0.0	1.000 1.000
		245	END	RU	0.0	220.1	220.1	0.0	1.000 1.000
24	2	245	BEG	RU	0.0	220.1	220.1	0.0	1.000 1.000
		250	END	RU	0.0	110.1	110.1	0.0	1.000 1.000
24	3	250	BEG	RU	0.0	110.1	110.1	0.0	1.000 1.000
		255	END	RU	0.0	.0	.0	0.0	1.000 1.000

ADLPIPE PAGE 1

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

VERSION ADLPIPE- JULY, 1975
REFERENCE ADLPIPE MANUAL, DATED JANUARY 1975

FEATURES OF ADLPIPE-

1. ASME SECTION III , CLASS 1 STRESS ANALYSIS AND STRESS REPORT PER NB 3600
2. ASME SECTION III , CLASS 1 USAGE FACTOR CALCULATION
3. ASME SECTION III , CLASS 2 AND 3 STRESS ANALYSIS AND STRESS REPORT PER WINTER 1972 ADDENDA
4. ANSI B31.1 , 1967 AND 1973 STRESS ANALYSIS AND REPORT
5. ISOMETRIC PLOT WITH SEQUENCE NUMBERS
6. ISOMETRIC PLOTTING WITH OR WITHOUT DIMENSIONS
7. PLAN AND ELEVATION DRAWINGS WITH OR WITHOUT DIMENSIONS
8. STEREOSCOPIC VIEWS OF DEFORMED PIPING
9. SKIN RESTRAINT ADDED (SEE REFERENCED INPUT MANUAL P. 39)
10. REVISED TAPE 14 FILE STRUCTURE (SEE REFERENCED INPUT MANUAL P. 43)
11. OPTIONAL ABSOLUTE SUM ON CLOSELY SPACED MODES
(ACTIVATE BY SPECIFYING PERCENT RANGE OF MODES TO BE ABSOLUTELY SUMMED IN 2(2) FIELD ON SHOCK CARD)
12. HANGER SUMMARY IS AUTOMATICALLY PROVIDED

FOR FURTHER INFORMATION OR COMMENT CONTACT-

I. H. DINGWELL
A. D. LITTLE, INC
ACORN PARK
CAMBRIDGE, MASS 02140
TEL (617) 864-5770

ADLPIPE PAGE 2

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

COMPILED INPUT DATA

SA	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
B3	1	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SH	1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DI	0	2 ✓	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FR	1	6	.1000 ✓	.3000 ✓	.5000 ✓	.7000 ✓	.8000 ✓	.9000 ✓
FR	7	12	1.0000 ✓	2.0000 ✓	3.0000 ✓	4.0000 ✓	5.0000 ✓	6.0000 ✓
FR	13	17	8.0000 ✓	10.0000 ✓	20.0000 ✓	50.0000 ✓	100.0000 ✓	0.0000
G	1	6	.0360 ✓	.0390 ✓	.0570 ✓	.0620 ✓	.0730 ✓	.0800 ✓
G	7	12	.0860 ✓	.1600 ✓	.2130 ✓	.2530 ✓	.2800 ✓	.2800 ✓
G	13	17	.2600 ✓	.2300 ✓	.1600 ✓	.0930 ✓	.0730 ✓	0.0000
EN	0	0	6.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 3

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

PIPE SYSTEM GEOMETRY
 NUMBER OF NETWORK POINTS = 25
 NUMBER OF SECTIONS = 24
 ORDER OF DYNAMICAL STIFFNESS MATRIX = 64

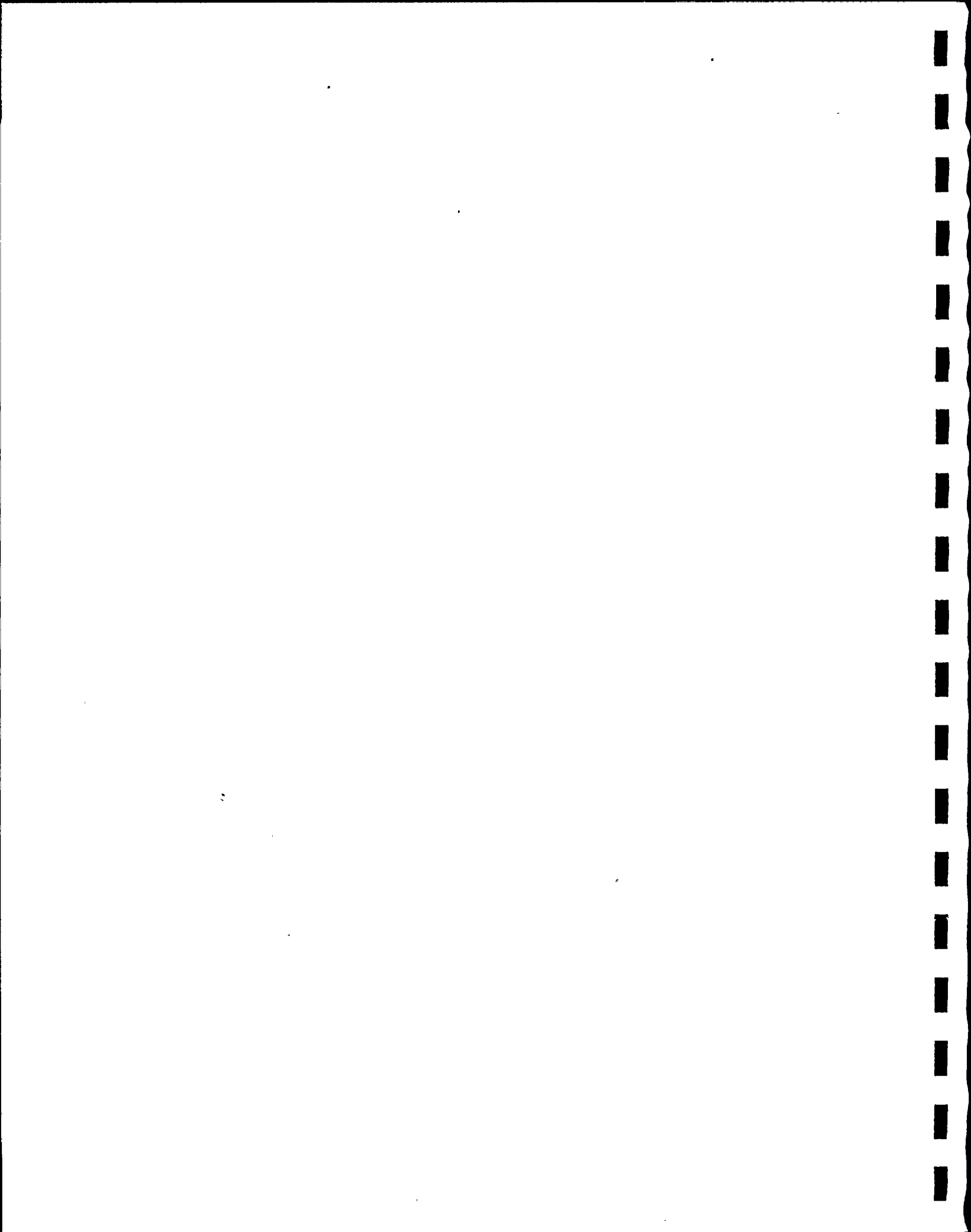
NUMBER OF MEMBERS = 56
 ORDER OF STIFFNESS MATRIX = 66

NETWORK POINT RESTRAINTS

NETWORK PT.	SEQ	TRANSLATION			ROTATION		
		X	Y	Z	X	Y	Z
1	5	RST	RST	RST	RST	RST	RST
2	15	FREE	FREE	FREE	FREE	FREE	FREE
3	20	FREE	FREE	FREE	FREE	FREE	FREE
4	30	FREE	FREE	FREE	FREE	FREE	FREE
5	40	FREE	FREE	FREE	FREE	FREE	FREE
6	50	FREE	FREE	FREE	FREE	FREE	FREE
7	57	FREE	FREE	FREE	FREE	FREE	FREE
8	70	FREE	FREE	FREE	FREE	FREE	FREE
9	85	FREE	FREE	FREE	FREE	FREE	FREE
10	87	RST	RST	RST	RST	RST	RST
11	90	FREE	FREE	FREE	FREE	FREE	FREE
12	100	FREE	FREE	FREE	FREE	FREE	FREE
13	107	FREE	FREE	FREE	FREE	FREE	FREE
14	115	FREE	FREE	FREE	FREE	FREE	FREE
15	125	FREE	FREE	FREE	FREE	FREE	FREE
16	135	FREE	FREE	FREE	FREE	FREE	FREE
17	150	FREE	FREE	FREE	FREE	FREE	FREE
18	155	RST	RST	RST	RST	RST	RST
19	167	FREE	FREE	FREE	FREE	FREE	FREE
20	175	FREE	FREE	FREE	FREE	FREE	FREE
21	190	FREE	FREE	FREE	FREE	FREE	FREE
22	205	FREE	FREE	FREE	FREE	FREE	FREE
23	220	FREE	FREE	FREE	FREE	FREE	FREE
24	240	FREE	FREE	FREE	FREE	FREE	FREE
25	255	RST	RST	FREE	FREE	FREE	FREE

NETWORK POINT MOVEMENTS (INCHES)

NETWORK PT.	SEQ	TRANSLATION			ROTATION		
		X	Y	Z	X	Y	Z



ADLPIPE PAGE 4

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

NO MOVEMENTS

ADLPIPE PAGE 5

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK



ADLPIPE PAGE 5

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCDL 1 Y SHOCK

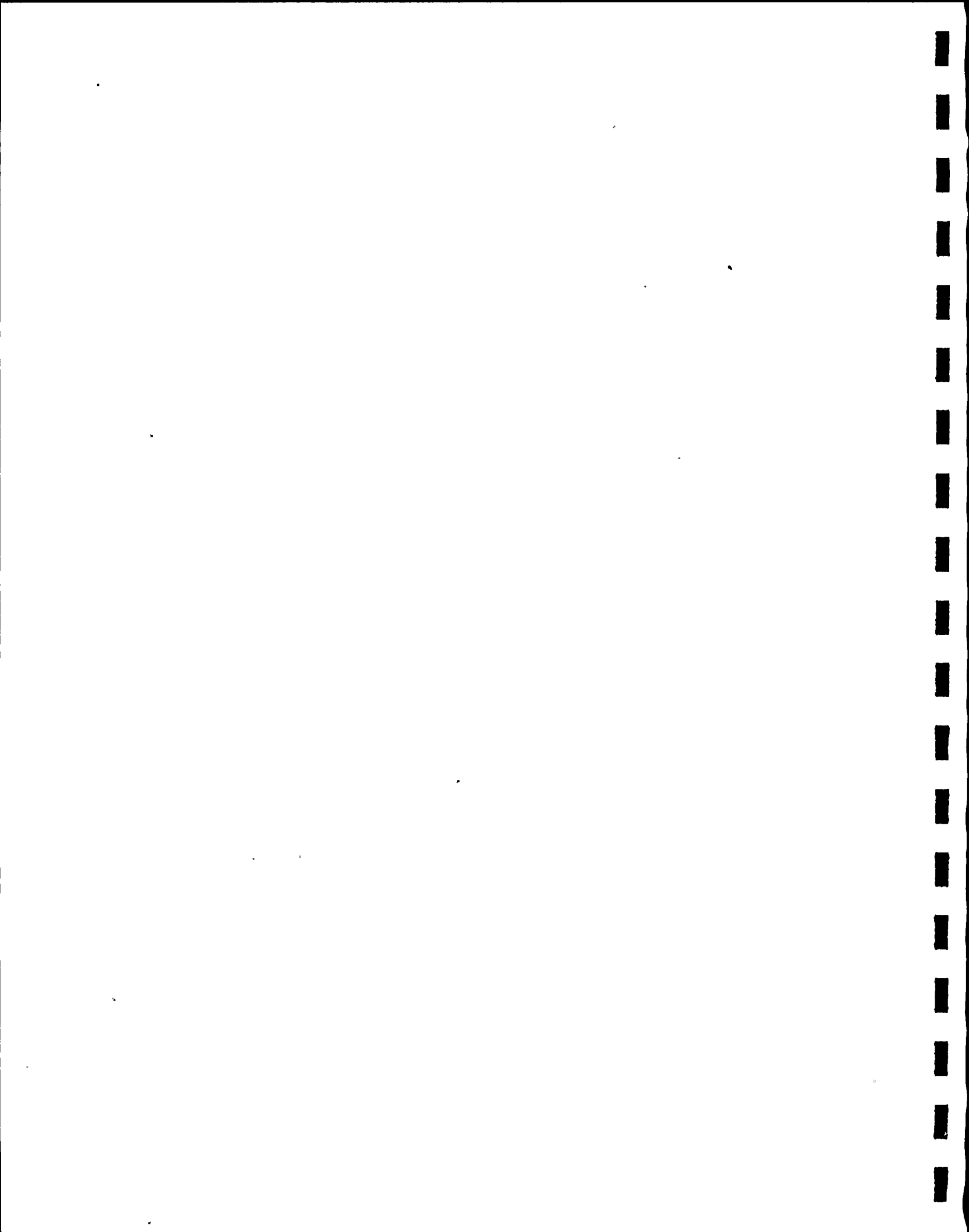
RESPONSE SPECTRA

FREQUENCY Y AMPLITUDE

.10	35.1990
.30	4.2369
.50	1.8382
.70	1.2372
.80	1.1152
.90	.9657
1.00	.8609
2.00	.3911
3.00	.2314
4.00	.1546
5.00	.1095
6.00	.0760
8.00	.0397
10.00	.0225
20.00	.0039
50.00	.0004
100.00	.0001

ADLPIPE PAGE 6

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCDL 1 Y SHOCK



* NOTE *

FOR CURVED MEMBERS, QUANTITIES LISTED UNDER
INITIAL CO-ORDS ARE CO-ORDS OF ARC CENTER
THE BRACKETED NUMBERS WHICH FOLLOW ARE THE
ARC RADIUS (IN), INCLUDED ANGLE (DEG).

* NOTE *

FOR THIS VERSION, CO-ORD DIMENSIONS IN FEET
ALL OTHER QUANTITIES, RADIUS, THICKNESS, STRESS
MOMENTS, ETC. ARE DIMENSIONED IN INCHES.

PIPE SYSTEM GEOMETRY

SECTION 1 CONNECTS SEQUENCE POINTS 5 AND 15 AND HAS 2 MEMBERS.

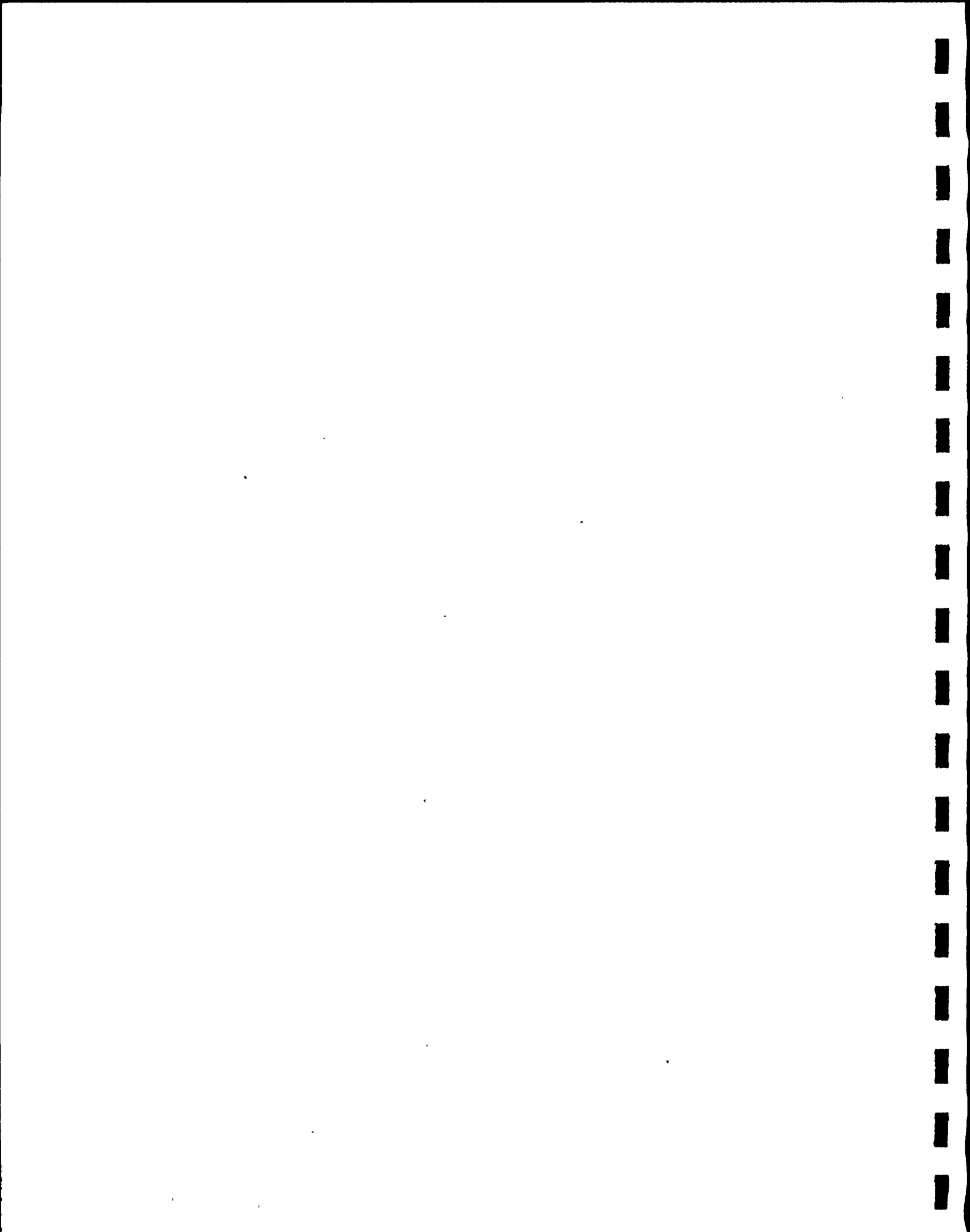
MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	5	10	14.00	1.050	2.59	274.75	12.19	2.60	274.75	12.20	.27E+08	0.00	0.	44.18
2	EL/EL	10	15	14.00	1.050	2.60	271.00	12.24	(45,000 90,000)			.27E+08	0.00	0.	44.18

SECTION 2 CONNECTS SEQUENCE POINTS 15 AND 20 AND HAS 1 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	15	20	14.00	1.050	3.38	271.00	15.91	3.38	269.25	15.91	.27E+08	0.00	0.	44.18

SECTION 3 CONNECTS SEQUENCE POINTS 20 AND 30 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	20	25	14.00	1.050	3.38	269.25	15.91	3.38	266.29	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	25	30	14.00	1.050	3.38	266.29	15.91	3.38	263.32	15.91	.27E+08	0.00	0.	44.18



ADLPIPE PAGE 7

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

SECTION 4 CONNECTS SEQUENCE POINTS 30 AND 40 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	30	35	14.00	1.050	3.38	263.32	15.91	3.38	260.36	15.91	.27E+08	0.00 0.		44.18
2	RU/RU	35	40	14.00	1.050	3.38	260.36	15.91	3.38	257.39	15.91	.27E+08	0.00 0.		44.18

SECTION 5 CONNECTS SEQUENCE POINTS 40 AND 50 AND HAS 2 MEMBERS.

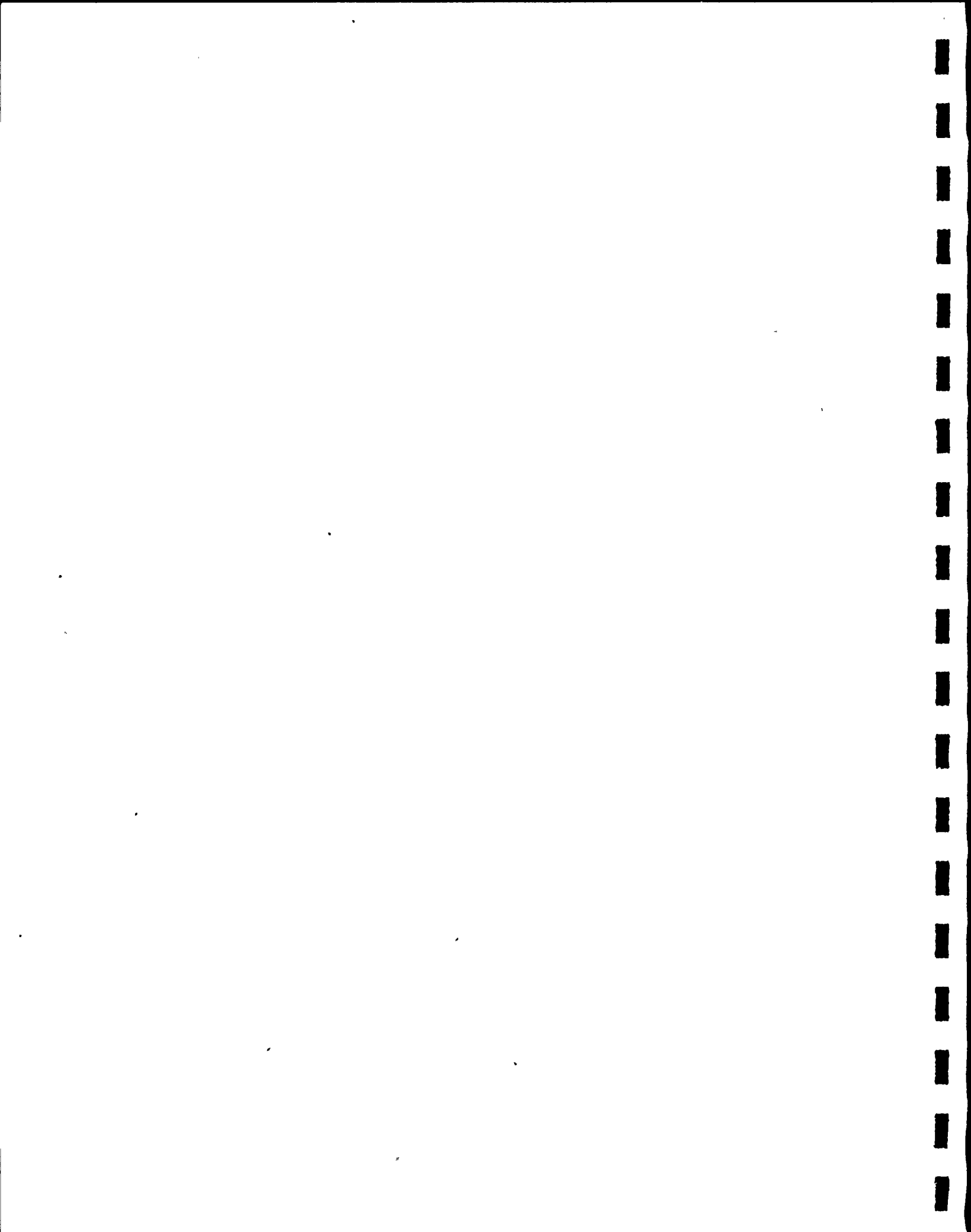
MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	40	45	14.00	1.050	3.38	257.39	15.91	3.38	254.43	15.91	.27E+08	0.00 0.		44.18
2	RU/RU	45	50	14.00	1.050	3.38	254.43	15.91	3.38	251.46	15.91	.27E+08	0.00 0.		44.18

SECTION 6 CONNECTS SEQUENCE POINTS 50 AND 57 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	50	55	14.00	1.050	3.38	251.46	15.91	3.38	246.46	15.91	.27E+08	0.00 0.		44.18
2	RU/RU	55	57	15.00	2.050	3.38	246.46	15.91	3.38	241.04	15.91	.27E+08	0.00 0.		215.20

SECTION 7 CONNECTS SEQUENCE POINTS 57 AND 70 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	57	60	14.00	1.050	3.38	241.04	15.91	3.38	237.74	15.91	.27E+08	0.00 0.		44.18
2	RU/RU	60	65	14.00	1.050	3.38	237.74	15.91	3.38	234.04	15.91	.27E+08	0.00 0.		44.18
3	RU/RU	65	70	14.00	1.050	3.38	234.04	15.91	3.38	231.64	15.91	.27E+08	0.00 0.		44.18



SECTION 8 CONNECTS SEQUENCE POINTS 70 AND 85 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPLAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	70	75	14.00	1.050	3.38	231.64	15.91	3.38	231.59	15.91	.27E+08	0.00	0.	44.18
2	EL/EL	75	80	14.00	1.050	7.11	231.59	15.49	(45.000 90.000)			.27E+08	0.00	0.	44.18
3	RU/RU	80	85	14.00	1.050	7.11	227.84	15.49	7.16	227.84	15.49	.27E+08	0.00	0.	44.18

SECTION 9 CONNECTS SEQUENCE POINTS 85 AND 87 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPLAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	85	86	15.00	10.000	7.16	227.84	15.49	9.42	227.84	15.23	.27E+08	0.00	0.	324.36
2	RU/RU	86	87	15.00	10.000	9.42	227.84	15.23	9.42	232.17	15.23	.27E+08	0.00	0.	324.36

SECTION 10 CONNECTS SEQUENCE POINTS 87 AND 90 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPLAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	87	88	15.00	10.000	9.42	232.17	15.23	12.04	232.17	15.71	.27E+08	0.00	0.	324.36
2	RU/RU	88	90	15.00	10.000	12.04	232.17	15.71	12.48	232.17	13.30	.27E+08	0.00	0.	324.36

SECTION 11 CONNECTS SEQUENCE POINTS 90 AND 100 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPLAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	90	95	14.00	1.050	12.48	232.17	13.30	12.48	232.17	13.25	.27E+08	0.00	0.	44.18
2	EL/EL	95	100	14.00	1.050	12.48	235.92	13.25	(45.000 90.000)			.27E+08	0.00	0.	44.18

ADLPIPE PAGE 9

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

SECTION12 CONNECTS SEQUENCE POINTS 100 AND 107 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	100	105	14.00	1.050	13.15	235.92	9.56	13.15	237.17	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	105	107	15.00	2.050	13.15	237.17	9.56	13.15	241.75	9.56	.27E+08	0.00	0.	173.10

SECTION13 CONNECTS SEQUENCE POINTS 107 AND 115 AND HAS 2 MEMBERS.

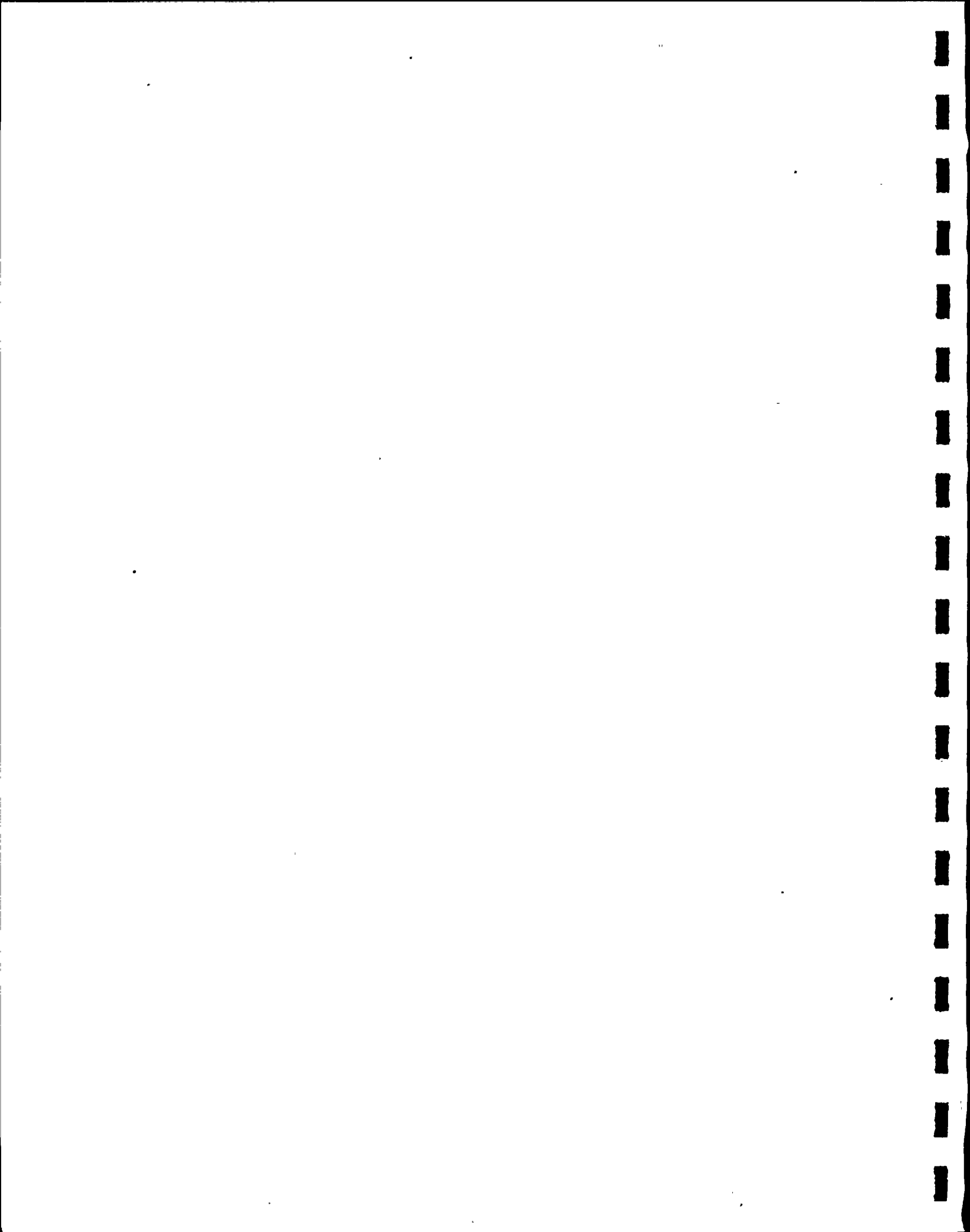
MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	107	110	14.00	1.050	13.15	241.75	9.56	13.15	244.71	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	110	115	14.00	1.050	13.15	244.71	9.56	13.15	247.66	9.56	.27E+08	0.00	0.	44.18

SECTION14 CONNECTS SEQUENCE POINTS 115 AND 125 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	115	120	14.00	1.050	13.15	247.66	9.56	13.15	250.62	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	120	125	14.00	1.050	13.15	250.62	9.56	13.15	253.57	9.56	.27E+08	0.00	0.	44.18

SECTION15 CONNECTS SEQUENCE POINTS 125 AND 135 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	125	130	14.00	1.050	13.15	253.57	9.56	13.15	257.57	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	130	135	14.00	1.050	13.15	257.57	9.56	13.15	261.57	9.56	.27E+08	0.00	0.	44.18



SECTION16 CONNECTS SEQUENCE POINTS 135 AND 150 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	135	140	14.00	1.050	13.15	261.57	9.56	13.15	262.64	9.56	.27E+08	0.00	0.	44.18
2	EL/EL	140	145	14.00	1.050	10.12	262.64	7.35	(45,000	75,997)		.27E+08	0.00	0.	44.18
3	RU/RU	145	150	14.00	1.050	10.85	266.28	7.89	10.81	266.29	7.85	.27E+08	0.00	0.	44.18

SECTION17 CONNECTS SEQUENCE POINTS 150 AND 155 AND HAS 1 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	150	155	14.00	1.050	10.81	266.29	7.85	8.47	267.02	6.15	.27E+08	0.00	0.	44.18

SECTION18 CONNECTS SEQUENCE POINTS 20 AND 167 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	20	160	7.00	.753	3.38	269.25	15.91	.80	269.25	15.91	.27E+08	0.00	0.	13.18
2	RU/RU	160	165	7.00	.753	.80	269.25	15.91	-1.77	269.25	15.91	.27E+08	0.00	0.	13.18
3	RU/RU	165	167	8.00	1.753	-1.77	269.25	15.91	-5.14	269.25	15.91	.27E+08	0.00	0.	98.17

SECTION19 CONNECTS SEQUENCE POINTS 167 AND 175 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	167	170	7.00	.753	-5.14	269.25	15.91	-8.48	269.25	15.91	.27E+08	0.00	0.	13.18
2	RU/RU	170	175	7.00	.753	-8.48	269.25	15.91	-11.82	269.25	15.91	.27E+08	0.00	0.	13.18

SECTION20 CONNECTS SEQUENCE POINTS 175 AND 190 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN	
						X	Y	Z	X	Y	Z					
1	RU/RU	175	180	7.00	.753	-11.82	269.25	15.91	-15.17	269.25	15.91	.27E+08	0.00	0.	13.18	
2	RU/RU	180	185	7.00	.753	-15.17	269.25	15.91	-16.76	269.25	15.91	.27E+08	0.00	0.	13.18	
3	EL/EL	185	190	7.00	.753	-16.76	269.37	17.65	(21.000	90.000)	.27E+08	0.00	0.	13.18

SECTION21 CONNECTS SEQUENCE POINTS 190 AND 205 AND HAS 3 MEMBERS.

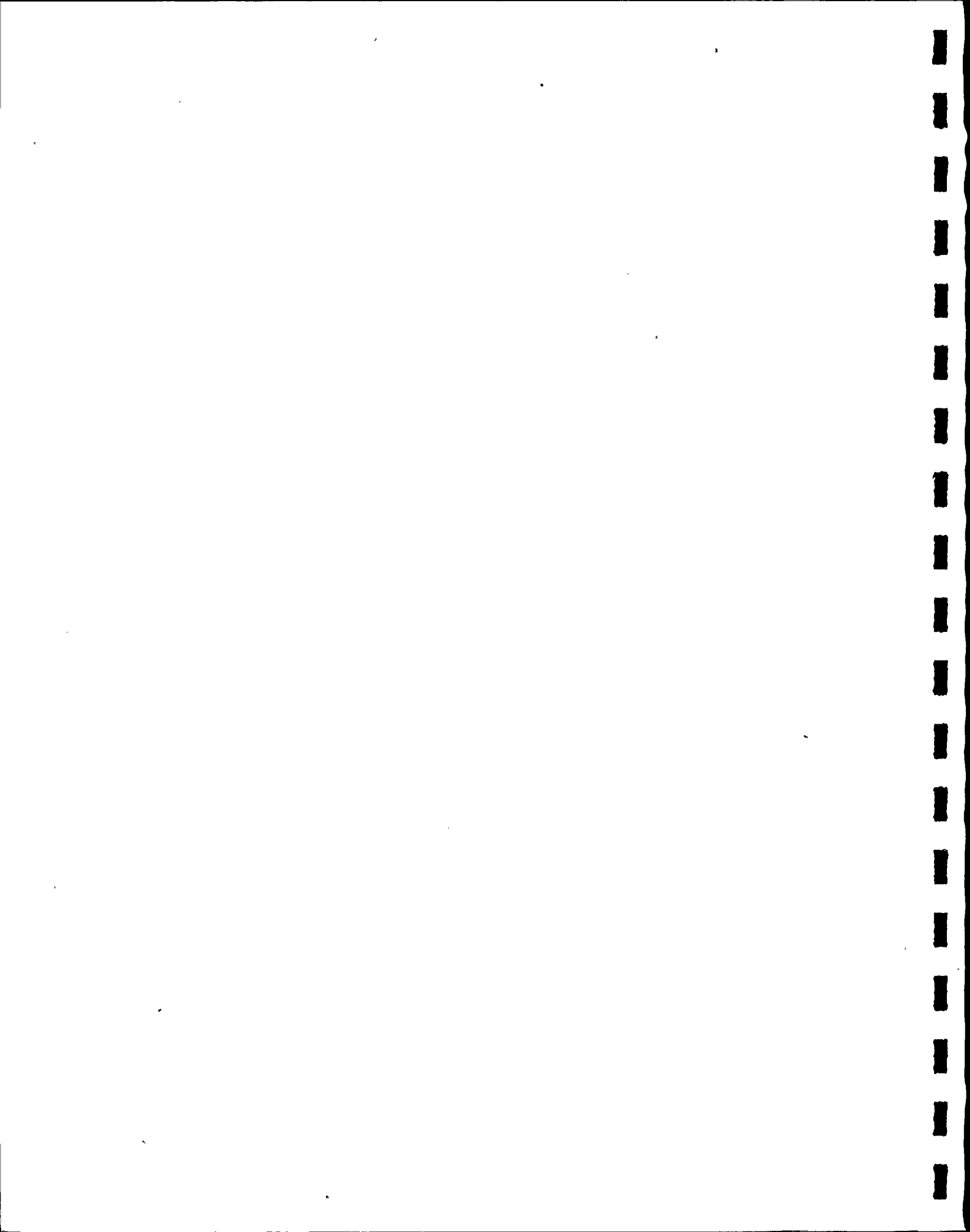
MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN	
						X	Y	Z	X	Y	Z					
1	RU/RU	190	195	7.00	.753	-18.51	269.37	17.65	-18.51	269.38	17.68	.27E+08	0.00	0.	13.18	
2	RU/RU	195	200	7.00	.753	-18.51	269.38	17.68	-18.51	269.38	17.71	.27E+08	0.00	0.	13.18	
3	EL/EL	200	205	7.00	.753	-16.76	269.38	17.71	(21.000	90.000)	.27E+08	0.00	0.	13.18

SECTION22 CONNECTS SEQUENCE POINTS 205 AND 220 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN	
						X	Y	Z	X	Y	Z					
1	RU/RU	205	210	7.00	.753	-16.76	269.50	19.45	-15.88	269.50	19.45	.27E+08	0.00	0.	13.18	
2	RU/RU	210	215	7.00	.753	-15.88	269.50	19.45	-15.01	269.50	19.45	.27E+08	0.00	0.	13.18	
3	EL/EL	215	220	7.00	.753	-15.01	269.50	21.20	(21.000	90.000)	.27E+08	0.00	0.	13.18

SECTION23 CONNECTS SEQUENCE POINTS 220 AND 240 AND HAS 4 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	220	225	7.00	.753	-13.26	269.50	21.20	-13.26	269.50	22.57	.27E+08	0.00	0.	13.18
2	RU/RU	225	230	7.00	.753	-13.26	269.50	22.57	-13.26	269.50	25.68	.27E+08	0.00	0.	13.18



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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS X Y Z	FINAL CO-ORDS X Y Z	MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
3	RU/RU	230	235	7.00	.753	-13.26 269.50 25.68	-13.26 269.50 28.79	.27E+08	0.00 0.		13.18
4	RU/RU	235	240	7.00	.753	-13.26 269.50 28.79	-13.26 269.50 31.91	.27E+08	0.00 0.		13.18

SECTION 24 CONNECTS SEQUENCE PCINTS 240 AND 255 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS X Y Z	FINAL CO-ORDS X Y Z	MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
1	RU/RU	240	245	7.00	.753	-13.26 269.50 31.91	-13.26 269.50 35.02	.27E+08	0.00 0.		13.18
2	RU/RU	245	250	7.00	.753	-13.26 269.50 35.02	-13.26 269.50 38.13	.27E+08	0.00 0.		13.18
3	RU/RU	250	255	7.00	.753	-13.26 269.50 38.13	-13.26 269.50 41.25	.27E+08	0.00 0.		13.18

WEIGHT

.66E+04

ADLPIPE PAGE 13

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS



MODAL DEFLECTIONS FOR 20 FREQUENCIES
DEFLECTIONS INCLUDE SHOCK SPECTRA DISPLACEMENTS AND MODAL PARTICIPATION FACTORS

		MODE AND FREQUENCY									
LUMP	DIR	1 1.927	2 3.721	3 7.612	4 8.611	5 11.594	6 13.072	7 13.839	8 15.604	9 15.926	10 18.087
15	1	.000	-.002	.001	.000	-.000	.000	0.000	0.000	.000	-.000
15	2	.000	-.000	.001	.000	.000	-.000	0.000	0.000	.000	.000
15	3	.000	-.000	.001	-.000	.000	-.000	0.000	0.000	.000	.000
20	1	.000	-.005	.002	.000	-.000	.000	0.000	0.000	.000	-.000
20	2	.000	-.000	.001	.000	.000	-.000	0.000	0.000	.000	.000
20	3	.000	-.000	.002	-.000	.000	-.000	0.000	0.000	.000	.000
30	1	.000	-.011	.004	.001	.000	.000	0.000	0.000	-.000	-.001
30	2	.000	-.000	.001	.000	.000	-.000	0.000	0.000	.000	.000
30	3	.000	-.001	.004	-.001	.000	-.000	0.000	0.000	.000	.000
40	1	.000	-.014	.006	.001	.000	-.000	0.000	0.000	-.000	-.000
40	2	.000	-.000	.001	.000	.000	-.000	0.000	0.000	.000	.000
40	3	.000	-.001	.006	-.001	.000	-.000	0.000	0.000	.000	.000
50	1	.000	-.014	.006	.001	.000	-.000	0.000	0.000	-.000	-.000
50	2	.000	-.000	.001	.000	.000	-.000	0.000	0.000	.000	.000
50	3	.000	-.001	.007	-.001	.000	-.000	0.000	0.000	-.000	.000
57	1	.000	-.009	.005	.001	.000	-.000	0.000	0.000	-.000	.001
57	2	.000	-.000	.001	.000	.000	-.000	0.000	0.000	.000	.000
57	3	.000	-.001	.006	-.001	-.000	-.000	0.000	0.000	-.000	-.000
70	1	.000	-.002	.001	.000	.000	-.000	0.000	0.000	.000	.000
70	2	.000	-.000	.001	.000	.000	-.000	0.000	0.000	.000	.000
70	3	.000	-.000	.002	-.000	-.000	-.000	0.000	0.000	-.000	-.000
85	1	-.000	-.000	-.000	.000	.000	-.000	0.000	0.000	-.000	-.000
85	2	.000	.000	.000	-.000	-.000	-.000	0.000	0.000	.000	.000
85	3	.000	-.000	.000	-.000	-.000	-.000	0.000	0.000	-.000	-.000
90	1	0.000	0.000	0.000	0.000	0.000	0.000	.000	-.000	0.000	0.000
90	2	0.000	0.000	0.000	0.000	0.000	0.000	.000	-.000	0.000	0.000
90	3	0.000	0.000	0.000	0.000	0.000	0.000	.000	-.000	0.000	0.000
100	1	0.000	0.000	0.000	0.000	0.000	0.000	.001	-.000	0.000	0.000
100	2	0.000	0.000	0.000	0.000	0.000	0.000	.001	.000	0.000	0.000
100	3	0.000	0.000	0.000	0.000	0.000	0.000	.001	.000	0.000	0.000
107	1	0.000	0.000	0.000	0.000	0.000	0.000	.001	-.000	0.000	0.000
107	2	0.000	0.000	0.000	0.000	0.000	0.000	.001	.000	0.000	0.000
107	3	0.000	0.000	0.000	0.000	0.000	0.000	.002	.000	0.000	0.000
115	1	0.000	0.000	0.000	0.000	0.000	0.000	.002	-.001	0.000	0.000
115	2	0.000	0.000	0.000	0.000	0.000	0.000	.001	.000	0.000	0.000
115	3	0.000	0.000	0.000	0.000	0.000	0.000	.003	.000	0.000	0.000
125	1	0.000	0.000	0.000	0.000	0.000	0.000	.001	-.001	0.000	0.000
125	2	0.000	0.000	0.000	0.000	0.000	0.000	.001	.000	0.000	0.000
125	3	0.000	0.000	0.000	0.000	0.000	0.000	.003	.000	0.000	0.000
135	1	0.000	0.000	0.000	0.000	0.000	0.000	.000	-.000	0.000	0.000
135	2	0.000	0.000	0.000	0.000	0.000	0.000	.001	.000	0.000	0.000
135	3	0.000	0.000	0.000	0.000	0.000	0.000	.001	.000	0.000	0.000
150	1	0.000	0.000	0.000	0.000	0.000	0.000	-.000	-.000	0.000	0.000
150	2	0.000	0.000	0.000	0.000	0.000	0.000	.000	.000	0.000	0.000
150	3	0.000	0.000	0.000	0.000	0.000	0.000	.000	.000	0.000	0.000
167	1	.000	-.005	.002	.000	-.000	.000	0.000	0.000	.000	-.000
167	2	-.000	.072	-.000	-.000	-.000	-.000	0.000	0.000	.000	.000
167	3	.000	-.001	.003	-.000	-.000	.000	0.000	0.000	.002	-.001

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

175	1	.000	-.005	.002	.000	-.000	.000	0.000	0.000	.000	-.000	
175	2	-.006	.170	.001	.000	-.000	-.000	0.000	0.000	.000	.002	
175	3	.006	-.000	.001	.000	-.001	.000	0.000	0.000	.002	-.001	
190	1	.000	-.003	.002	.001	-.000	.000	0.000	0.000	-.001	-.000	
190	2	-.000	.281	.003	.001	-.000	-.001	0.000	0.000	-.000	-.006	
190	3	.001	.002	-.000	.000	-.001	.000	0.000	0.000	-.000	.001	
205	1	.000	-.000	.002	.001	-.001	.000	0.000	0.000	-.001	-.000	
205	2	-.000	.247	.003	.001	-.000	-.000	0.000	0.000	-.000	-.004	
205	3	.001	.002	-.001	.000	-.001	.000	0.000	0.000	-.000	.001	
220	1	.000	-.000	.002	.001	-.001	.000	0.000	0.000	-.001	-.000	
220	2	-.000	.182	.002	.000	.000	.001	0.000	0.000	-.000	.001	
220	3	.001	.002	-.001	-.000	.000	-.000	0.000	0.000	-.000	.000	
240	1	.000	-.000	.002	.000	-.002	.000	0.000	0.000	-.001	.001	
240	2	-.000	.095	.002	.000	.000	.001	0.000	0.000	-.000	-.000	
240	3	.001	.002	-.001	-.000	.000	-.000	0.000	0.000	-.000	.000	
255	3	.001	.002	-.001	-.000	.000	-.000	0.000	0.000	-.000	.000	

MODE AND FREQUENCY

		11	12	13	14	15	16	17	18	19	20
LUMR	DIR	21.273	23.561	27.611	28.677	31.573	32.317	38.573	41.836	47.390	48.929

MODAL DEFLECTIONS ARE LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 15

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

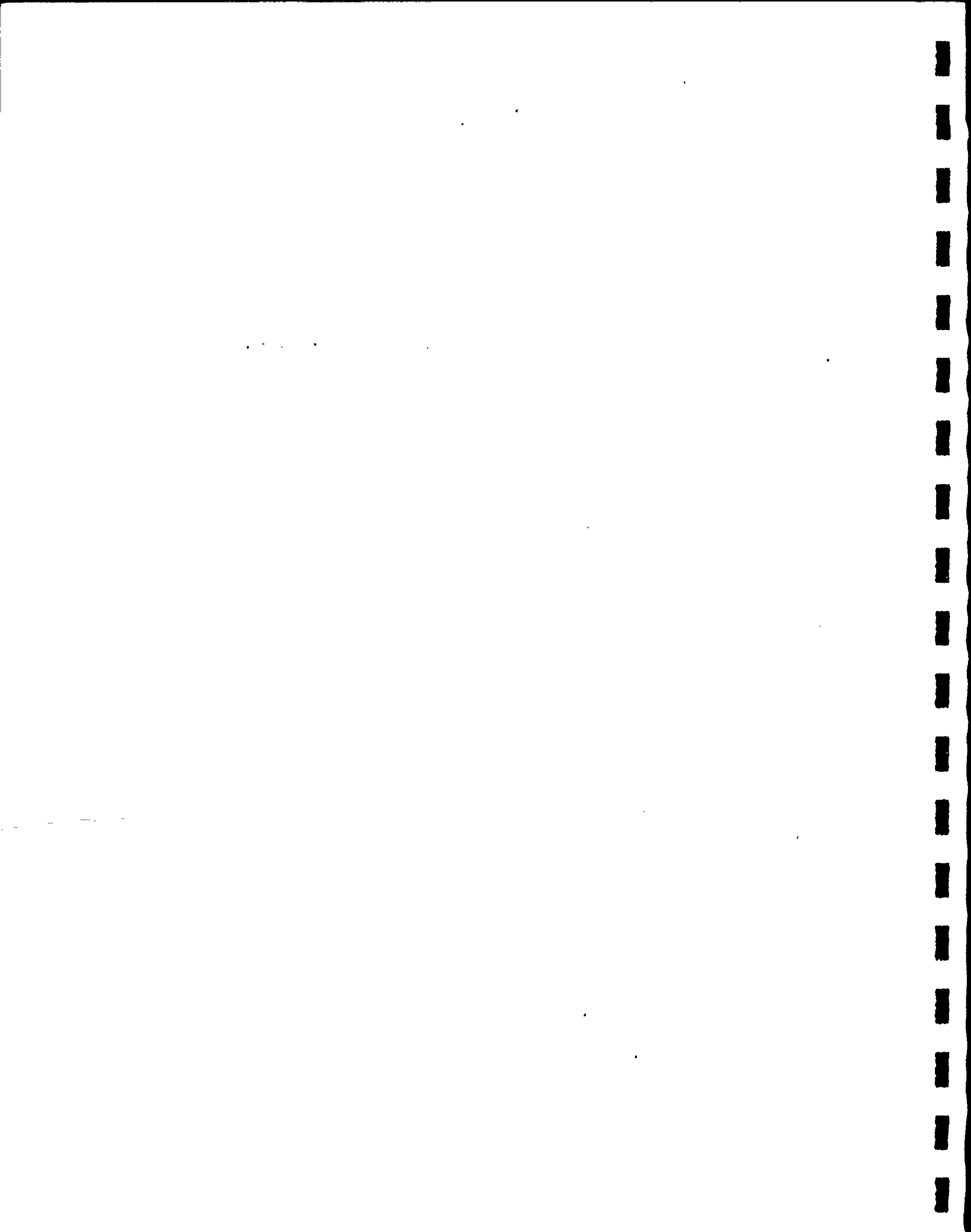
DYNAMIC PIPE STRESS ANALYSIS, MODE

NINE MILE POWER STAT. MODEL 1 Y SHGCK
1, FREQUENCY 1.93

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

LOADS
SHOCK

SC	HE	SEQ	POS	MODE FX (LB)	2 FREQUENCY FY (LB)	FZ (LB)	3,72 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-210.	-306.	-29.	14651.	-22006.	86154.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	210.	306.	29.	-14472.	21887.	-86192.	.0000	.0000	-.0000	-.0000	.0000	-.0000
1	2	15	END	210.	306.	29.	320.	12904.	-100519.	-.0025	-.0003	-.0001	.0000	-.0000	-.0001
2	1	15	BEG	-210.	-307.	-30.	-320.	-12904.	100519.	-.0025	-.0003	-.0001	.0000	-.0000	-.0001
2	1	20	END	210.	307.	30.	947.	12904.	-105086.	-.0049	-.0003	-.0003	.0000	-.0000	-.0001
3	1	20	BEG	-277.	1223.	1.	5976.	-4750.	-178993.	-.0049	-.0003	-.0003	.0000	-.0000	-.0001
3	1	25	END	277.	-1223.	-1.	-6021.	4750.	169123.	-.0086	-.0003	-.0005	.0000	-.0000	-.0001
3	2	30	END	277.	-1223.	-1.	-6065.	4750.	159252.	-.0114	-.0003	-.0006	.0000	-.0000	-.0001
4	1	30	BEG	-328.	1221.	-2.	6065.	-4750.	-159252.	-.0114	-.0003	-.0006	.0000	-.0000	-.0001
4	1	35	END	328.	-1221.	2.	-6011.	4750.	147573.	-.0133	-.0003	-.0007	.0000	-.0000	-.0000
4	2	40	END	328.	-1221.	2.	-5957.	4750.	135895.	-.0143	-.0004	-.0008	.0000	-.0000	-.0000
5	1	40	BEG	-392.	1220.	-5.	5957.	-4750.	-135895.	-.0143	-.0004	-.0008	.0000	-.0000	-.0000
5	1	45	END	392.	-1220.	5.	-5772.	4750.	121949.	-.0145	-.0004	-.0009	.0000	-.0000	.0000
5	2	50	END	392.	-1220.	5.	-5587.	4750.	108003.	-.0141	-.0004	-.0009	.0000	-.0000	.0000
6	1	50	BEG	-487.	1217.	-11.	5587.	-4750.	-108003.	-.0141	-.0004	-.0009	.0000	-.0000	.0000
6	1	55	END	487.	-1217.	11.	-4906.	4750.	78786.	-.0120	-.0004	-.0009	-.0000	-.0000	.0000
6	2	57	END	487.	-1217.	11.	-4168.	4750.	47137.	-.0086	-.0004	-.0008	-.0000	-.0000	.0001
7	1	57	BEG	-482.	1207.	-29.	4168.	-4750.	-47137.	-.0086	-.0004	-.0008	-.0000	-.0000	.0001
7	1	60	END	482.	-1207.	29.	-3027.	4750.	20123.	-.0063	-.0005	-.0007	-.0000	-.0000	.0001
7	2	65	END	482.	-1207.	29.	-1885.	4750.	-6891.	-.0038	-.0005	-.0006	-.0000	-.0000	.0001
7	3	70	END	482.	-1207.	29.	-915.	4750.	-29830.	-.0017	-.0005	-.0005	-.0000	-.0000	.0001
8	1	70	BEG	-491.	1204.	-32.	915.	-4750.	29830.	-.0017	-.0005	-.0005	-.0000	-.0000	.0001
8	1	75	END	491.	-1204.	32.	-896.	4750.	-30245.	-.0016	-.0005	-.0005	-.0000	-.0000	.0001
8	2	80	END	491.	-1204.	32.	6457.	9567.	-7485.	-.0001	.0001	-.0000	-.0000	-.0000	-.0000



ADLPIPE PAGE 17

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT HCDEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEO	POS	F1 (LB)	FV (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	891.	-1204.	32.	6536.	9567.	-7485.	-.0001	.0001	-.0000	-.0000	-.0000	-.0000
9	1	85	BEG	-693.	1206.	-32.	-6536.	-9567.	7485.	-.0001	.0001	-.0000	-.0000	-.0000	-.0000
9	1	86	END	693.	-1206.	32.	10241.	12625.	25950.	-.0001	.0000	.0000	-.0000	-.0000	-.0000
9	2	87	END	693.	-1206.	32.	8583.	12625.	61982.	.0000	.0000	-.0000	-.0000	-.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEG	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-41.	-1531.	-32.	-6923.	-8154.	284079.	-.0049	-.0003	-.0663	.0000	-.0000	-.0001
18	1	160	END	-41.	1531.	32.	6923.	7161.	-236761.	-.0049	.0105	-.0008	.0000	-.0000	-.0005
18	2	165	END	-41.	1531.	32.	6923.	6168.	-189483.	-.0049	.0332	-.0010	.0000	-.0000	-.0009
18	3	167	END	-41.	1531.	32.	6923.	4869.	-127582.	-.0049	.0720	-.0010	.0000	.0000	-.0010
19	1	167	BEG	9.	-1057.	-38.	-6923.	-4869.	127582.	-.0049	.0720	-.0010	.0000	.0000	-.0010
19	1	170	END	-9.	1057.	38.	6923.	3328.	-85177.	-.0049	.1176	-.0006	.0001	.0000	-.0012
19	2	175	END	-9.	1057.	38.	6923.	1788.	-42771.	-.0049	.1705	-.0000	.0001	.0000	-.0014
20	1	175	BEG	1.	-783.	-38.	-6923.	-1788.	42771.	-.0049	.1705	-.0000	.0001	.0000	-.0014
20	1	180	END	-1.	783.	38.	6923.	245.	-11369.	-.0049	.2270	.0007	.0001	.0000	-.0014
20	2	185	END	-1.	783.	38.	6923.	-490.	3590.	-.0049	.2545	.0011	.0001	.0000	-.0014
20	3	190	END	-1.	783.	38.	23267.	-1277.	20032.	-.0025	.2809	.0017	.0002	.0000	-.0013
21	1	190	BEG	-2.	-453.	-37.	-23267.	1277.	-20032.	-.0025	.2809	.0017	.0002	.0000	-.0013
21	1	195	END	2.	453.	37.	23424.	-1278.	20032.	-.0025	.2808	.0017	.0002	.0000	-.0013
21	2	200	END	2.	453.	37.	23583.	-1278.	20032.	-.0025	.2807	.0017	.0002	.0000	-.0013
21	3	205	END	2.	453.	37.	33016.	-553.	10524.	-.0004	.2472	.0021	.0003	-.0000	-.0013
22	1	205	BEG	-2.	-251.	-35.	-33016.	553.	-10524.	-.0004	.2472	.0021	.0003	-.0000	-.0013
22	1	210	END	2.	251.	35.	33016.	-188.	7893.	-.0004	.2334	.0022	.0004	-.0000	-.0013
22	2	215	END	2.	251.	35.	33016.	176.	5262.	-.0004	.2196	.0023	.0004	-.0000	-.0013
22	3	220	END	2.	251.	35.	38278.	858.	0.	-.0005	.1821	.0024	.0006	-.0000	-.0014
23	1	220	BEG	-3.	59.	-31.	-38278.	-858.	0.	-.0005	.1821	.0024	.0006	-.0000	-.0014
23	1	225	END	3.	-59.	31.	37305.	806.	-0.	-.0005	.1727	.0024	.0006	-.0000	-.0014
23	2	230	END	3.	-59.	31.	35084.	689.	-0.	-.0005	.1495	.0024	.0007	.0000	-.0014

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 19

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

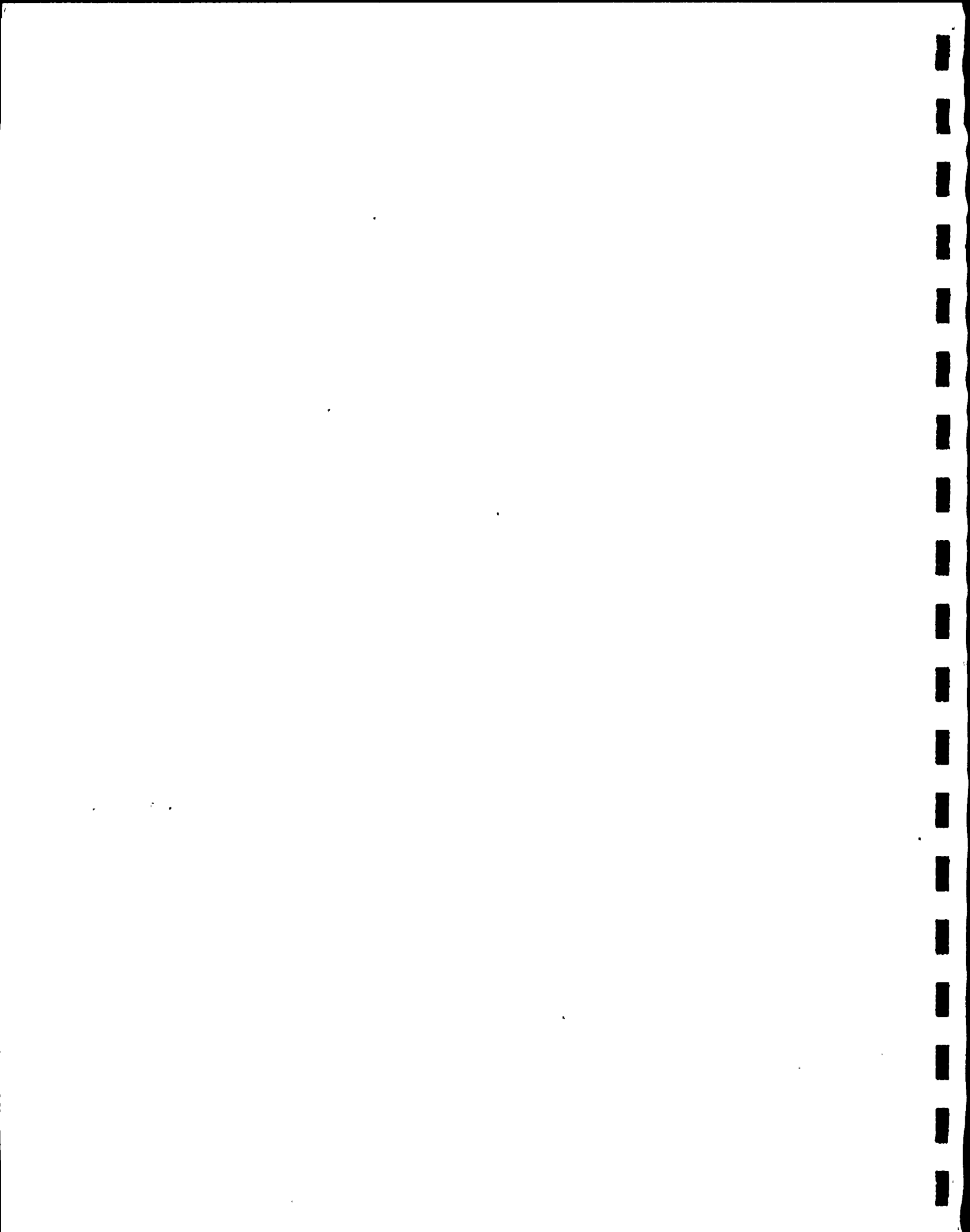
ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	EY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	3.	-59.	31.	32863.	572.	-0.	-.0005	.1236	.0024	.0007	.0000	-.0014
23	4	240	END	3.	-59.	31.	30642.	454.	-0.	-.0004	.0953	.0024	.0008	.0000	-.0014
24	1	240	BEG	-4.	273.	-25.	-30642.	-454.	0.	-.0004	.0953	.0024	.0008	.0000	-.0014
24	1	245	END	4.	-273.	25.	20428.	303.	0.	-.0003	.0648	.0024	.0008	.0000	-.0014
24	2	250	END	4.	-273.	25.	10214.	151.	0.	-.0002	.0326	.0024	.0009	.0000	-.0014
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	-.0000	.0024	.0009	.0000	-.0014
24	3	255	END	4.	-273.	25.	-0.	-0.	0.	.0000	-.0000	.0024	.0009	.0000	-.0014

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Y SHOCK
 PCDE 2 FREQUENCY 3.72

NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS												
		FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)	
1	5	-210.	-306.	-29.	14651.	-22006.	88154.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	15	-7.	-1.	-0.	-0.	0.	0.	-.0025	-.0003	-.0001	.0000	-.0000	-.0001	
3	20	-19.	-1.	-1.	-0.	-0.	0.	-.0049	-.0003	-.0003	.0000	-.0000	-.0001	
4	30	-51.	-1.	-3.	-0.	0.	0.	-.0114	-.0003	-.0006	.0000	-.0000	-.0001	
5	40	-64.	-2.	-4.	-0.	-0.	0.	-.0143	-.0004	-.0008	.0000	-.0000	-.0000	
6	50	-95.	-3.	-6.	0.	0.	-0.	-.0141	-.0004	-.0009	.0000	-.0000	.0000	
7	57	-155.	-10.	-17.	0.	-0.	-0.	-.0086	-.0004	-.0008	-.0000	-.0000	.0001	
8	70	-10.	-3.	-3.	0.	0.	-0.	-.0017	-.0005	-.0005	-.0000	-.0000	.0001	
9	85	-2.	2.	-0.	0.	0.	0.	-.0001	.0001	-.0000	-.0000	-.0000	-.0000	
10	87	693.	-1206.	32.	8583.	12625.	61982.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
19	167	-32.	473.	-6.	-0.	0.	0.	-.0049	.0720	-.0010	.0000	.0000	-.0010	
20	175	-8.	274.	-0.	-0.	0.	0.	-.0049	.1705	-.0000	.0001	.0000	-.0014	
21	190	-3.	330.	2.	0.	-0.	-0.	-.0025	.2809	.0017	.0002	.0000	-.0013	
22	205	-0.	202.	2.	-0.	0.	0.	-.0004	.2472	.0021	.0003	-.0000	-.0013	
23	220	-1.	310.	4.	-0.	0.	0.	-.0005	.1821	.0024	.0006	-.0000	-.0014	
24	240	-1.	214.	5.	-0.	-0.	-0.	-.0004	.0953	.0024	.0008	.0000	-.0014	
25	255	4.	-273.	25.	-0.	-0.	0.	.0000	-.0000	.0024	.0009	.0000	-.0014	

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK
MCDE 2 FREQUENCY 3.72

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS						RX (RAD)	RY (RAD)	RZ (RAD)
				HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)			

ADLPIPE PAGE 22

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCKLOADS
SHOCK

SC	HE	SEQ	POS	CODE FX (LB)	3 FREQUENCY FY (LB)	FZ (LB)	7.61 HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-520.	-21.	-414.	23817.	-18772.	-29893.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	520.	21.	414.	-23805.	18518.	29890.	.0000	.0000	.0000	-.0000	.0000	.0000
1	2	15	END	520.	21.	414.	-4260.	-494.	6299.	.0015	.0009	.0012	-.0000	.0000	.0000
2	1	15	BEG	-502.	-10.	-400.	4260.	494.	-6299.	.0015	.0009	.0012	-.0000	.0000	.0000
2	1	20	END	502.	10.	400.	4136.	-494.	-4250.	.0021	.0009	.0020	-.0000	.0000	.0000
3	1	20	BEG	-365.	41.	-354.	-3674.	-4760.	-4650.	.0021	.0009	.0020	-.0000	.0000	.0000
3	1	25	END	365.	-41.	354.	16283.	4760.	-8343.	.0032	.0009	.0032	-.0000	.0000	.0000
3	2	30	END	365.	-41.	354.	26891.	4760.	-21336.	.0042	.0009	.0045	-.0000	.0000	.0000
4	1	30	BEG	-287.	58.	-271.	-28891.	-4760.	21336.	.0042	.0009	.0045	-.0000	.0000	.0000
4	1	35	END	287.	-58.	271.	38548.	4760.	-31553.	.0051	.0009	.0055	-.0000	.0000	.0000
4	2	40	END	287.	-58.	271.	48206.	4760.	-41769.	.0058	.0009	.0063	-.0000	.0000	.0000
5	1	40	BEG	-179.	74.	-154.	-48206.	-4760.	41769.	.0058	.0009	.0063	-.0000	.0000	.0000
5	1	45	END	179.	-74.	154.	53687.	4760.	-48138.	.0063	.0009	.0068	-.0000	.0000	.0000
5	2	50	END	179.	-74.	154.	59167.	4760.	-54507.	.0065	.0009	.0071	-.0000	.0000	.0000
6	1	50	BEG	4.	99.	45.	-59167.	-4760.	54507.	.0065	.0009	.0071	-.0000	.0000	.0000
6	1	55	END	-4.	-99.	-45.	56458.	4760.	-54280.	.0061	.0009	.0067	.0000	.0000	-.0000
6	2	57	END	-4.	-99.	-45.	53523.	4760.	-54035.	.0050	.0009	.0055	.0000	.0000	-.0000
7	1	57	BEG	473.	183.	565.	-53523.	-4760.	54035.	.0050	.0009	.0055	.0000	.0000	-.0000
7	1	60	END	-473.	-183.	-565.	31139.	4760.	-35280.	.0039	.0009	.0044	.0000	.0000	-.0000
7	2	65	END	-473.	-183.	-565.	8756.	4760.	-16524.	.0026	.0009	.0031	.0000	.0000	-.0000
7	3	70	END	-473.	-183.	-565.	-10252.	4760.	-597.	.0014	.0009	.0020	.0000	.0000	-.0000
8	1	70	BEG	508.	204.	613.	10252.	-4760.	597.	.0014	.0009	.0020	.0000	.0000	-.0000
8	1	75	END	-508.	-204.	-613.	-10620.	4760.	-292.	.0014	.0009	.0020	.0000	.0000	-.0000
8	2	80	END	-508.	-204.	-613.	-37210.	-25175.	31725.	-.0000	.0000	.0001	.0000	.0000	-.0000

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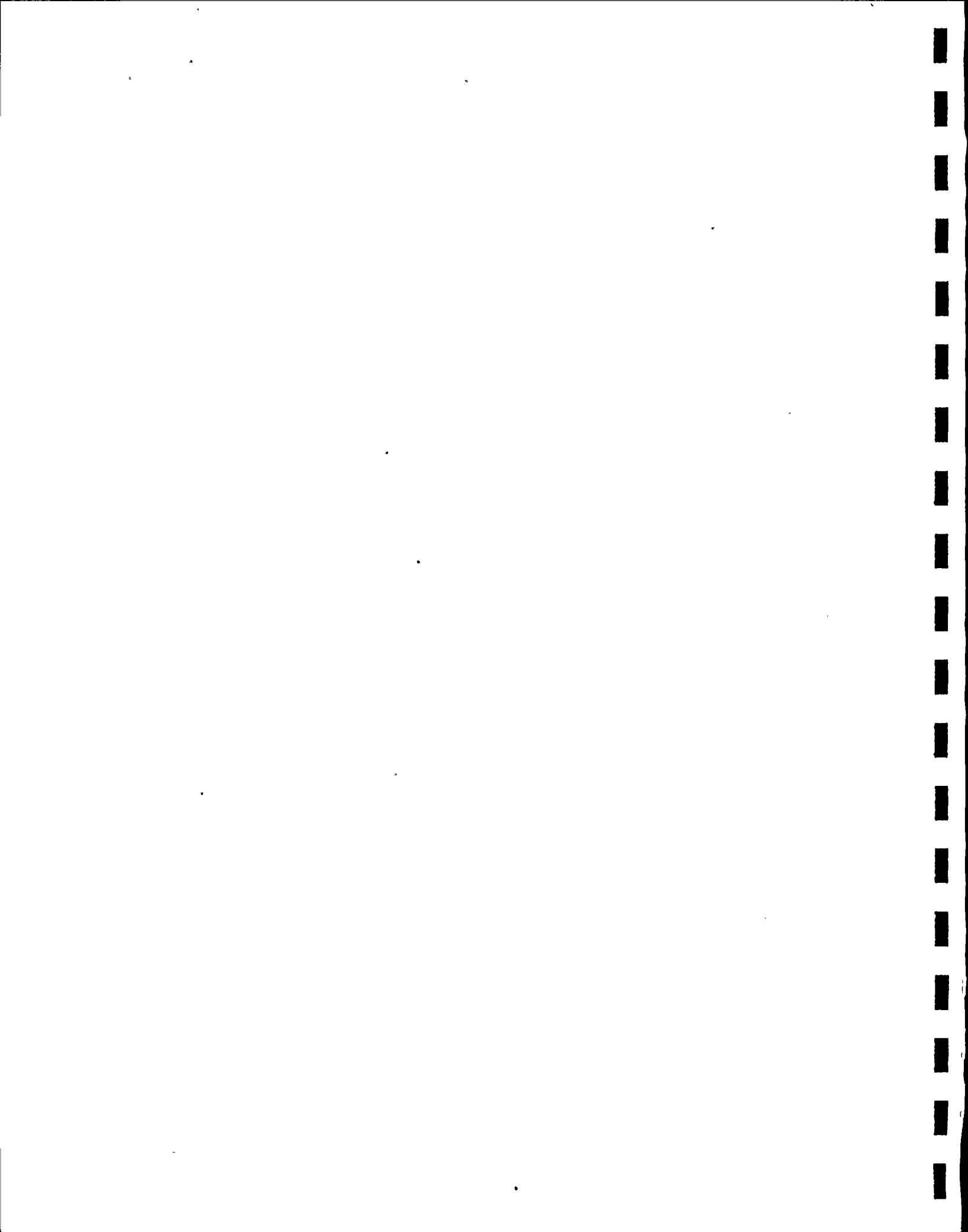
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE PAGE 23

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	BX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-508.	-204.	-613.	-37196.	-25573.	31847.	-.0000	.0000	.0001	.0000	.0000	-.0000
9	1	85	BEG	508.	204.	620.	37196.	25573.	-31847.	-.0000	.0000	.0001	.0000	.0000	-.0000
9	1	86	END	-508.	-204.	-620.	-36557.	-23967.	37491.	-.0000	.0000	-.0000	.0000	.0000	-.0000
9	2	87	END	-508.	-204.	-620.	-4295.	-43967.	11087.	.0000	.0000	.0000	.0000	.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

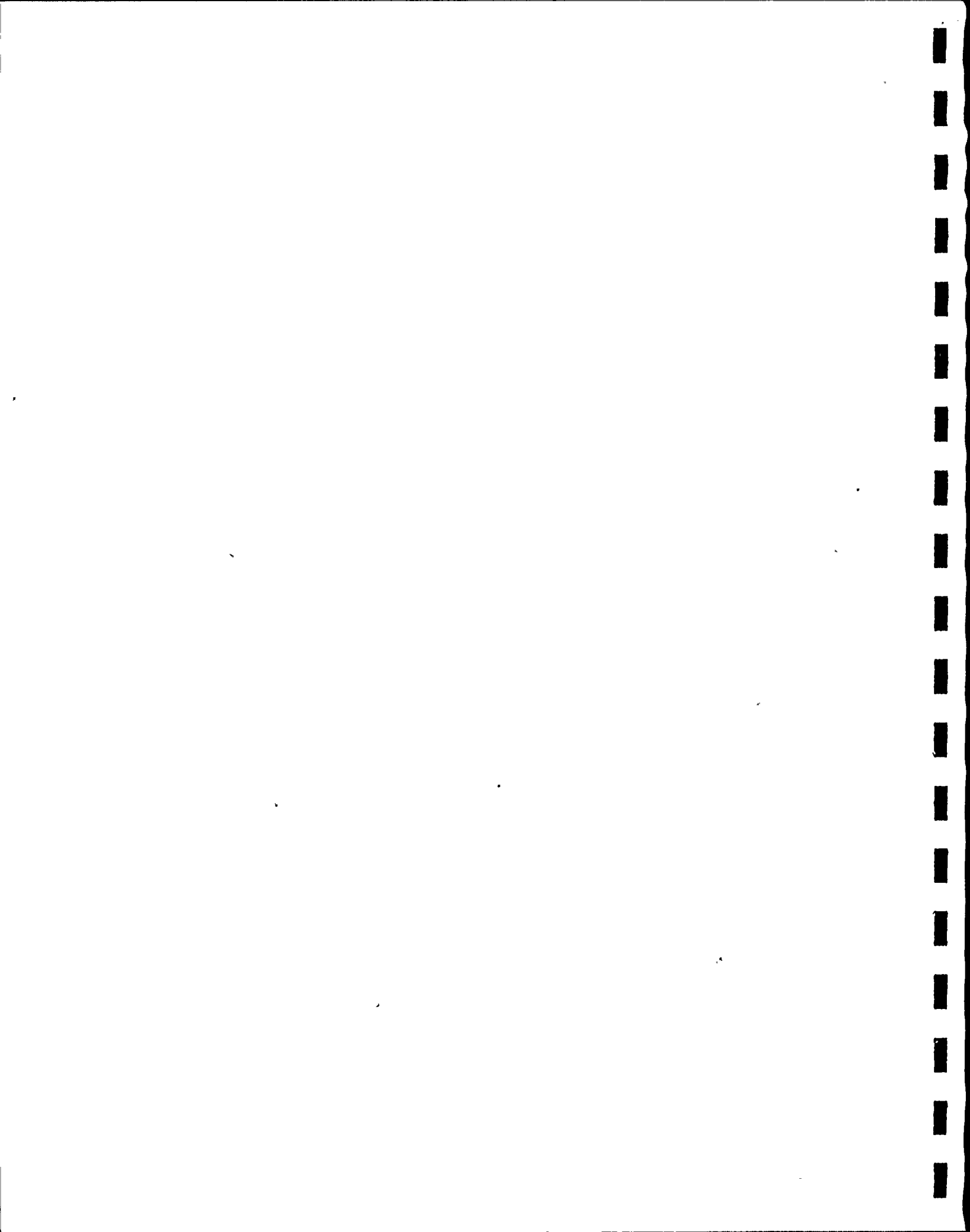
ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	EY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-104.	-37.	-14.	-462.	5254.	6900.	.0021	.0009	.0020	-.0000	.0000	.0000
18	1	160	END	104.	37.	14.	462.	-5689.	-7764.	.0021	.0002	.0024	-.0000	.0000	.0000
18	2	165	END	104.	37.	14.	462.	-6125.	-6829.	.0021	-.0001	.0026	-.0000	.0000	.0000
18	3	167	END	104.	37.	14.	462.	-6695.	-5143.	.0021	-.0001	.0026	-.0000	-.0000	-.0000
19	1	167	BEG	-46.	-41.	58.	-462.	6695.	5143.	.0021	-.0001	.0026	-.0000	-.0000	-.0000
19	1	170	END	46.	41.	-58.	462.	-4368.	-3512.	.0021	.0001	.0022	-.0000	-.0000	-.0000
19	2	175	END	46.	41.	-58.	462.	-2042.	-1880.	.0021	.0006	.0015	-.0000	-.0000	-.0000
20	1	175	BEG	-32.	-37.	68.	-462.	2042.	1880.	.0021	.0006	.0015	-.0000	-.0000	-.0000
20	1	180	END	32.	37.	-68.	462.	682.	-410.	.0021	.0013	.0005	-.0000	-.0000	-.0000
20	2	185	END	32.	37.	-68.	462.	1980.	290.	.0021	.0016	.0001	-.0000	-.0000	-.0000
20	3	190	END	32.	37.	-68.	1331.	2746.	1107.	.0019	.0025	-.0002	-.0000	-.0000	-.0000
21	1	190	BEG	-22.	-24.	67.	-1331.	-2746.	-1107.	.0019	.0025	-.0002	-.0000	-.0000	-.0000
21	1	195	END	22.	24.	-67.	1341.	2736.	1108.	.0019	.0025	-.0002	-.0000	-.0000	-.0000
21	2	200	END	22.	24.	-67.	1352.	2731.	1108.	.0019	.0025	-.0002	-.0000	-.0000	-.0000
21	3	205	END	22.	24.	-67.	1959.	869.	632.	.0021	.0027	-.0005	-.0000	.0000	-.0000
22	1	205	BEG	-15.	-15.	65.	-1959.	-869.	-632.	.0021	.0027	-.0005	-.0000	.0000	-.0000
22	1	210	END	15.	15.	-65.	1959.	167.	474.	.0021	.0026	-.0007	-.0000	.0000	-.0000
22	2	215	END	15.	15.	-65.	1959.	-496.	316.	.0021	.0024	-.0008	-.0000	.0000	-.0000
22	3	220	END	15.	15.	-65.	2275.	-2171.	-0.	.0023	.0023	-.0011	-.0000	.0000	-.0000
23	1	220	BEG	2.	2.	57.	-2275.	2171.	0.	.0023	.0023	-.0011	-.0000	.0000	-.0000
23	1	225	END	-2.	-2.	-57.	2248.	-2146.	-0.	.0023	.0024	-.0011	-.0000	.0000	-.0000
23	2	230	END	-2.	-2.	-57.	2185.	-2090.	-0.	.0023	.0023	-.0011	-.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 25

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEG	POS	FX (LB)	EY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-2.	-2.	-57.	2122.	-2034.	-0.	.0021	.0021	-.0011	.0000	-.0000	-.0000
23	4	240	END	-2.	-2.	-57.	2060.	-1978.	-0.	.0017	.0018	-.0011	.0000	-.0000	-.0000
24	1	240	BEG	18.	18.	47.	-2060.	1978.	0.	.0017	.0018	-.0011	.0000	-.0000	-.0000
24	1	245	END	-18.	-18.	-47.	1373.	-1319.	0.	.0012	.0013	-.0011	.0000	-.0000	-.0000
24	2	250	END	-18.	-18.	-47.	667.	-659.	0.	.0006	.0007	-.0011	.0000	-.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0011	.0000	-.0000	-.0000
24	3	255	END	-18.	-18.	-47.	-0.	0.	0.	-.0000	-.0000	-.0011	.0000	-.0000	-.0000

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Y SHOCK
 MCDE 3 FREQUENCY 7.61

NET PT SE0		NETWORK POINT REACTIONS AND DEFLECTIONS												
		F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)	
1	5	-520.	-21.	-414.	23817.	-18772.	-29893.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	15	18.	11.	14.	0.	-0.	-0.	.0015	.0009	.0012	0.0000	.0000	.0000	
3	20	34.	14.	31.	0.	-0.	-0.	.0021	.0009	.0020	0.0000	.0000	.0000	
4	30	78.	17.	83.	0.	0.	-0.	.0042	.0009	.0045	0.0000	.0000	.0000	
5	40	106.	17.	117.	0.	0.	-0.	.0058	.0009	.0063	0.0000	.0000	.0000	
6	50	183.	25.	199.	-0.	-0.	-0.	.0065	.0009	.0071	0.0000	.0000	.0000	
7	57	470.	84.	520.	-0.	0.	0.	.0050	.0009	.0055	0.0000	.0000	-0.0000	
8	70	35.	21.	48.	-0.	-0.	0.	.0014	.0009	.0020	0.0000	.0000	-0.0000	
9	85	-0.	4.	7.	-0.	-0.	0.	-0.0000	.0000	.0061	0.0000	.0000	-0.0000	
10	87	-588.	-208.	-620.	-4295.	-43967.	11087.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
19	167	58.	-4.	72.	-0.	-0.	-0.	.0021	-0.0001	.0026	0.0000	-0.0000	-0.0000	
20	175	14.	4.	10.	0.	0.	0.	.0021	.0006	.0015	0.0000	-0.0000	-0.0000	
21	190	10.	12.	-1.	0.	0.	0.	.0019	.0025	-0.0002	0.0000	-0.0000	-0.0000	
22	205	7.	9.	-2.	-0.	-0.	0.	.0021	.0027	-0.0005	0.0000	.0000	-0.0000	
23	220	16.	17.	-6.	0.	-0.	0.	.0023	.0023	-0.0011	0.0000	.0000	-0.0000	
24	240	16.	17.	-10.	-0.	0.	-0.	.0017	.0018	-0.0011	0.0000	-0.0000	-0.0000	
25	255	-18.	-18.	-47.	-0.	0.	0.	-0.0000	-0.0000	-0.0011	0.0000	-0.0000	-0.0000	



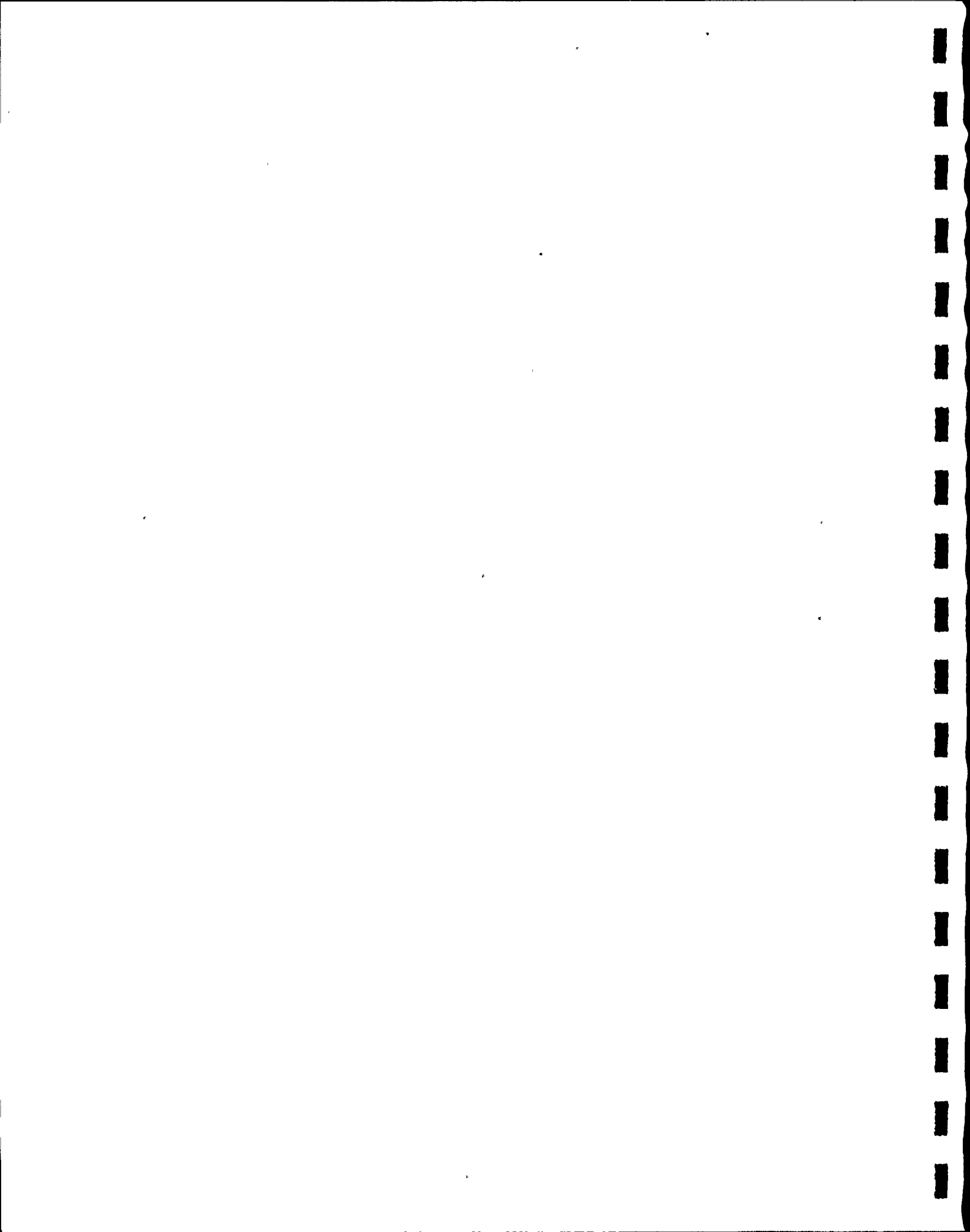
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK
PCDE 3 FREQUENCY 7.61

NET PT SEG	FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS			DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
				HX (IN-LB)	MY (IN-LB)	HZ (IN-LB)						

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK



LOADS
SHOCK

SC	ME	SEQ	POS	MODE FX (LB)	FREQUENCY FY (LB)	FZ (LB)	8.61 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-130.	-224.	100.	1147.	-3334.	-10047.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	130.	224.	-100.	-1015.	3245.	10019.	.0000	.0000	-.0000	-.0000	.0000	.0000
1	2	15	END	130.	224.	-100.	4324.	-3430.	2061.	.0003	.0000	-.0001	.0000	.0000	.0000
2	1	15	BEG	-126.	-224.	98.	-4324.	3430.	-2061.	.0003	.0000	-.0001	.0000	.0000	.0000
2	1	20	END	126.	224.	-98.	2260.	-3430.	-581.	.0004	.0000	-.0003	.0000	.0000	.0000
3	1	20	BEG	-86.	-217.	87.	-2573.	2673.	-1483.	.0004	.0000	-.0003	.0000	.0000	.0000
3	1	25	END	86.	217.	-87.	-519.	-2673.	-1586.	.0006	.0000	-.0005	.0000	.0000	.0000
3	2	30	END	86.	217.	-87.	-3610.	-2673.	-4655.	.0009	.0000	-.0007	.0000	.0000	.0000
4	1	30	BEG	-66.	-217.	70.	3610.	2673.	4655.	.0009	.0000	-.0007	.0000	.0000	.0000
4	1	35	END	66.	217.	-70.	-6096.	-2673.	-6998.	.0010	.0000	-.0009	.0000	.0000	.0000
4	2	40	END	66.	217.	-70.	-8582.	-2673.	-9340.	.0012	.0000	-.0011	.0000	.0000	.0000
5	1	40	BEG	-38.	-216.	44.	8582.	2673.	9340.	.0012	.0000	-.0011	.0000	.0000	.0000
5	1	45	END	38.	216.	-44.	-10147.	-2673.	-10676.	.0013	.0000	-.0012	.0000	.0000	.0000
5	2	50	END	38.	216.	-44.	-11713.	-2673.	-12012.	.0013	.0000	-.0013	.0000	-.0000	-.0000
6	1	50	BEG	10.	-215.	-2.	11713.	2673.	12012.	.0013	.0000	-.0013	.0000	-.0000	-.0000
6	1	55	END	-10.	215.	2.	-11619.	-2673.	-11434.	.0012	.0000	-.0012	-.0000	-.0000	-.0000
6	2	57	END	-10.	215.	2.	-11510.	-2673.	-10807.	.0009	.0000	-.0010	-.0000	-.0000	-.0000
7	1	57	BEG	122.	-211.	-122.	11518.	2673.	10807.	.0009	.0000	-.0010	-.0000	-.0000	-.0000
7	1	60	END	-122.	211.	122.	-6683.	-2673.	-5957.	.0007	.0000	-.0008	-.0000	-.0000	-.0000
7	2	65	END	-122.	211.	122.	-1848.	-2673.	-1108.	.0004	.0000	-.0005	-.0000	-.0000	-.0000
7	3	70	END	-122.	211.	122.	2257.	-2673.	3010.	.0002	.0000	-.0003	-.0000	-.0000	-.0000
8	1	70	BEG	128.	-210.	-132.	-2257.	2673.	-3010.	.0002	.0000	-.0003	-.0000	-.0000	-.0000
8	1	75	END	-128.	210.	132.	2336.	-2673.	3087.	.0002	.0000	-.0003	-.0000	-.0000	-.0000
8	2	80	END	-128.	210.	132.	7230.	2587.	-530.	.0000	-.0000	-.0000	-.0000	-.0000	.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	NX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-128.	210.	132.	7216.	2657.	-655.	.0000	-0.0000	-0.0000	-0.0000	-0.0000	.0000
9	1	85	BEG	129.	-211.	-133.	-7216.	-2657.	655.	.0000	-0.0000	-0.0000	-0.0000	-0.0000	.0000
9	1	86	END	-129.	211.	133.	6567.	5869.	-6367.	.0000	-0.0000	.0000	-0.0000	-0.0000	.0000
9	2	87	END	-129.	211.	133.	-350.	5869.	-13119.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



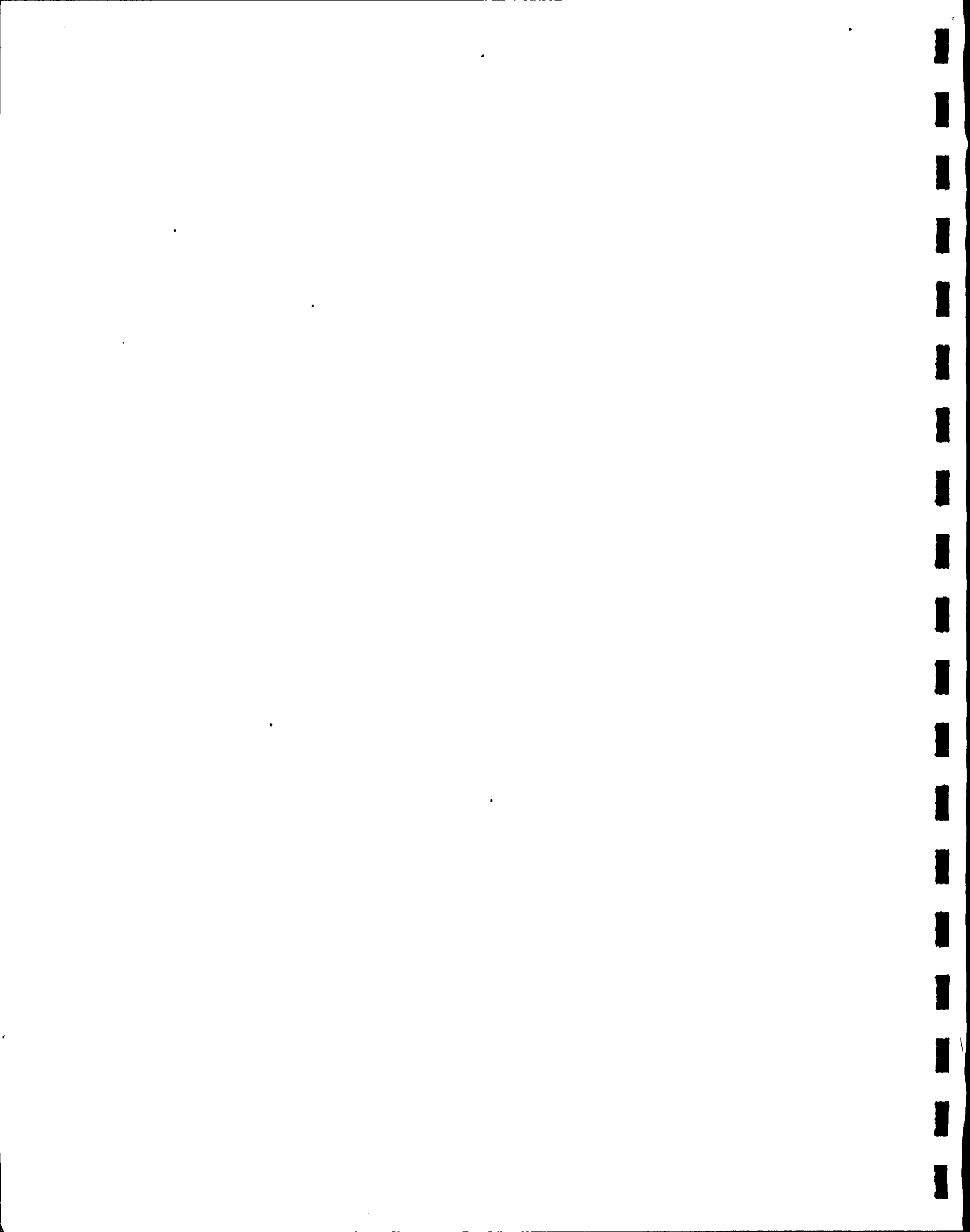
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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Y SHOCK
ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-31.	-6.	6.	313.	757.	2064.	.0004	.0000	-.0003	.0000	.0000	.0000
18	1	160	END	31.	6.	-6.	-313.	-572.	-1871.	.0004	-.0001	-.0002	.0000	.0000	.0000
18	2	165	END	31.	6.	-6.	-313.	-388.	-1678.	.0004	-.0002	-.0001	.0000	.0000	-.0000
18	3	167	END	31.	6.	-6.	-313.	-146.	-1425.	.0004	-.0001	-.0001	.0000	.0000	-.0000
19	1	167	BEG	-16.	-11.	3.	313.	146.	1425.	.0004	-.0001	-.0001	.0000	.0000	-.0000
19	1	170	END	16.	11.	-3.	-313.	-14.	-983.	.0004	-.0000	-.0000	.0000	.0000	-.0000
19	2	175	END	16.	11.	-3.	-313.	119.	-541.	.0004	.0002	.0000	.0000	.0000	-.0000
20	1	175	BEG	-12.	-10.	3.	313.	-119.	541.	.0004	.0002	.0000	.0000	.0000	-.0000
20	1	180	END	12.	10.	-3.	-313.	255.	-154.	.0004	.0004	.0001	.0000	.0000	-.0000
20	2	185	END	12.	10.	-3.	-313.	319.	30.	.0004	.0005	.0001	.0000	.0000	-.0000
20	3	190	END	12.	10.	-3.	-106.	132.	251.	.0005	.0006	.0002	.0000	.0000	-.0000
21	1	190	BEG	-9.	-6.	4.	106.	-132.	-251.	.0005	.0006	.0002	.0000	.0000	-.0000
21	1	195	END	9.	6.	-4.	-103.	129.	252.	.0005	.0006	.0002	.0000	.0000	-.0000
21	2	200	END	9.	6.	-4.	-101.	126.	252.	.0005	.0006	.0002	.0000	.0000	-.0000
21	3	205	END	9.	6.	-4.	24.	-157.	146.	.0006	.0005	.0001	.0000	.0000	-.0000
22	1	205	BEG	-6.	-3.	5.	-24.	157.	-146.	.0006	.0005	.0001	.0000	.0000	-.0000
22	1	210	END	6.	3.	-5.	24.	-206.	109.	.0006	.0005	.0000	.0000	.0000	-.0000
22	2	215	END	6.	3.	-5.	24.	-254.	73.	.0006	.0004	-.0000	.0000	.0000	-.0000
22	3	220	END	6.	3.	-5.	97.	-489.	0.	.0006	.0003	-.0001	.0000	.0000	-.0000
23	1	220	BEG	-1.	-1.	4.	-97.	489.	0.	.0006	.0003	-.0001	.0000	.0000	-.0000
23	1	225	END	1.	1.	-4.	109.	-499.	-0.	.0006	.0003	-.0001	.0000	.0000	-.0000
23	2	230	END	1.	1.	-4.	135.	-524.	-0.	.0006	.0003	-.0001	.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC.
ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 31

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

SC	WE	SEC	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	1.	1.	-4.	161.	-548.	-0.	.0006	.0002	-.0001	.0000	-.0000	-.0000
23	4	240	END	1.	1.	-4.	187.	-572.	-0.	.0005	.0002	-.0001	.0000	-.0000	-.0000
24	1	240	BEG	5.	2.	3.	-187.	572.	0.	.0005	.0002	-.0001	.0000	-.0000	-.0000
24	1	245	END	-5.	-2.	-3.	125.	-382.	0.	.0003	.0001	-.0001	.0000	-.0000	-.0000
24	2	250	END	-5.	-2.	-3.	62.	-191.	0.	.0002	.0001	-.0001	.0000	-.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	-.0000	-.0001	.0000	-.0000	-.0000
24	3	255	END	-5.	-2.	-3.	-0.	0.	0.	0.0000	-.0000	-.0001	.0000	-.0000	-.0000

NET PT SEC			NETWORK POINT REACTIONS AND DEFLECTIONS											
			F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5		-130.	-224.	100.	1147.	-3334.	-10047.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		4.	0.	-2.	-0.	-0.	-0.	.0003	.0000	-.0001	.0000	.0000	.0000
3	20		9.	0.	-5.	-0.	0.	-0.	.0004	.0000	-.0003	.0000	.0000	.0000
4	30		20.	0.	-17.	-0.	-0.	-0.	.0009	.0000	-.0007	.0000	.0000	.0000
5	40		28.	1.	-26.	-0.	-0.	-0.	.0012	.0000	-.0011	.0000	.0000	.0000
6	50		47.	1.	-46.	-0.	0.	0.	.0013	.0000	-.0013	.0000	-.0000	-.0000
7	57		113.	4.	-120.	0.	-0.	0.	.0009	.0000	-.0010	-.0000	-.0000	-.0000
8	70		6.	1.	-10.	0.	0.	0.	.0002	.0000	-.0003	.0000	-.0000	-.0000
9	85		2.	-2.	-1.	0.	0.	-0.	.0000	-.0000	-.0000	-.0000	-.0000	.0000
10	87		-129.	211.	133.	-350.	5869.	-13119.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167		15.	-5.	-3.	0.	-0.	-0.	.0004	-.0001	-.0001	.0000	.0000	-.0000
20	175		4.	1.	0.	0.	-0.	0.	.0004	.0002	.0000	.0000	.0000	-.0000
21	190		3.	4.	1.	0.	-0.	0.	.0005	.0006	.0002	.0000	.0000	-.0000
22	205		3.	2.	0.	-0.	-0.	0.	.0006	.0005	.0001	.0000	.0000	-.0000
23	220		6.	3.	-1.	-0.	-0.	0.	.0006	.0003	-.0001	.0000	.0000	-.0000
24	240		6.	2.	-1.	-0.	0.	-0.	.0005	.0002	-.0001	.0000	-.0000	-.0000
25	255		-5.	-2.	-3.	-0.	0.	0.	0.0000	-.0000	-.0001	.0000	-.0000	-.0000

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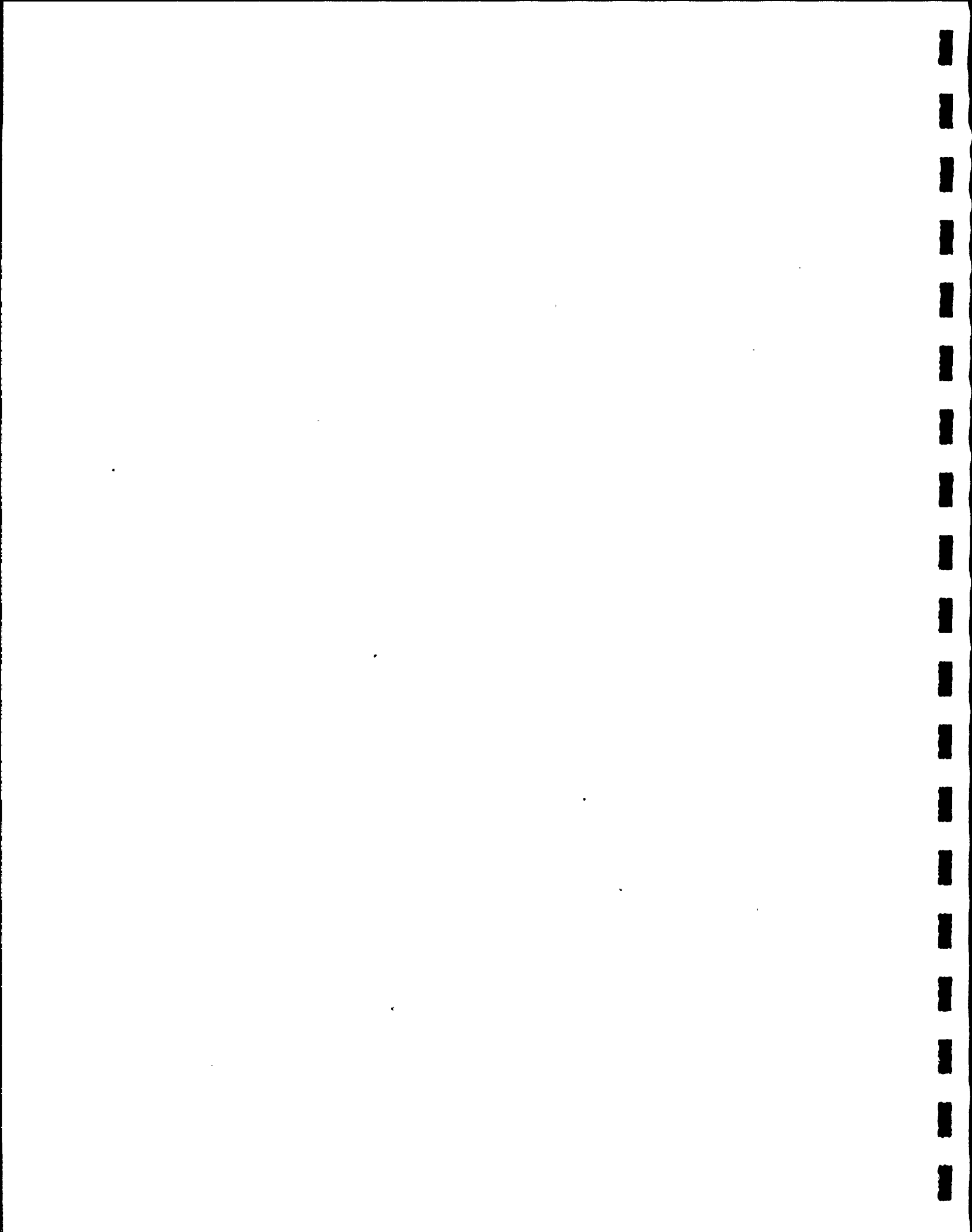
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POKER STAT MODEL 1 Y SHOCK
MODE 4 FREQUENCY 8.61

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS			DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
				KX (IN-LB)	KY (IN-LB)	KZ (IN-LB)						



LOADS
SHOCK

SC	ME	SEQ	POS	CODE FX (LB)	5 FREQUENCY FY (LB)	FZ (LB)	11.59 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	OX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	26.	-26.	8.	543.	1639.	-216.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-26.	26.	-8.	-528.	-1625.	213.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000
1	2	15	END	-26.	26.	-8.	237.	-559.	1140.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000
2	1	15	BEG	25.	-25.	8.	-237.	559.	-1140.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000
2	1	20	END	-25.	25.	-8.	59.	-559.	1663.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000
3	1	20	BEG	-18.	-24.	-0.	-104.	-364.	-1766.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000
3	1	25	END	18.	24.	0.	112.	364.	1133.	-0.0000	.0000	.0000	.0000	-0.0000	.0000
3	2	30	END	18.	24.	0.	120.	364.	500.	.0000	.0000	.0000	.0000	-0.0000	.0000
4	1	30	BEG	-17.	-24.	0.	-120.	-364.	-500.	.0000	.0000	.0000	.0000	-0.0000	.0000
4	1	35	END	17.	24.	-0.	106.	364.	-104.	.0001	.0000	.0000	.0000	-0.0000	.0000
4	2	40	END	17.	24.	-0.	92.	364.	-707.	.0001	.0000	.0000	.0000	-0.0000	.0000
5	1	40	BEG	-13.	-23.	1.	-92.	-364.	707.	.0001	.0000	.0000	.0000	-0.0000	.0000
5	1	45	END	13.	23.	-1.	62.	364.	-1187.	.0001	.0000	.0000	.0000	-0.0000	.0000
5	2	50	END	13.	23.	-1.	32.	364.	-1666.	.0001	.0000	.0000	.0000	-0.0000	.0000
6	1	50	BEG	-5.	-23.	1.	-32.	-364.	1666.	.0001	.0000	.0000	.0000	-0.0000	.0000
6	1	55	END	5.	23.	-1.	-41.	364.	-1976.	.0001	.0000	.0000	.0000	-0.0000	-0.0000
6	2	57	END	5.	23.	-1.	-119.	364.	-2313.	.0001	.0000	-0.0000	.0000	-0.0000	-0.0000
7	1	57	BEG	22.	-20.	0.	119.	-364.	2313.	.0001	.0000	-0.0000	.0000	-0.0000	-0.0000
7	1	60	END	-22.	20.	-0.	-127.	364.	-1455.	.0001	.0000	-0.0000	.0000	-0.0000	-0.0000
7	2	65	END	-22.	20.	-0.	-135.	364.	-598.	.0001	.0000	-0.0000	.0000	-0.0000	-0.0000
7	3	70	END	-22.	20.	-0.	-142.	364.	131.	.0000	.0000	-0.0000	.0000	-0.0000	-0.0000
8	1	70	BEG	23.	-19.	-0.	142.	-364.	-131.	.0000	.0000	-0.0000	.0000	-0.0000	-0.0000
8	1	75	END	-23.	19.	0.	-142.	364.	145.	.0000	.0000	-0.0000	.0000	-0.0000	-0.0000
8	2	80	END	-23.	19.	0.	-225.	262.	333.	.0000	-0.0000	-0.0000	.0000	-0.0000	.0000



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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	RX (IN-LB)	RY (IN-LB)	RZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-23.	19.	0.	-226.	261.	322.	.0000	-.0000	-.0000	.0000	-.0000	.0000
9	1	85	BEG	24.	-20.	-0.	226.	-261.	-322.	.0000	-.0000	-.0000	.0000	-.0000	.0000
9	1	86	END	-24.	20.	0.	-286.	200.	-210.	.0000	-.0000	-.0000	.0000	-.0000	.0000
9	2	87	END	-24.	20.	0.	-309.	200.	-1443.	-.0000	-.0000	.0000	.0000	.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	RX (IN-LB)	PY (IN-LB)	STAT MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	FY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	42.	-1.	9.	45.	923.	103.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000
18	1	160	END	-42.	1.	-9.	-45.	-638.	-74.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	.0000
18	2	165	END	-42.	1.	-9.	-45.	-352.	-45.	-0.0000	-0.0000	-0.0001	-0.0000	-0.0000	.0000
18	3	167	END	-42.	1.	-9.	-45.	22.	-7.	-0.0000	-0.0000	-0.0003	-0.0000	-0.0000	.0000
19	1	167	BEG	39.	-2.	-8.	45.	-22.	7.	-0.0000	-0.0000	-0.0003	-0.0000	-0.0000	.0000
19	1	170	END	-39.	2.	8.	-45.	-303.	78.	-0.0000	-0.0000	-0.0004	-0.0000	-0.0000	.0000
19	2	175	END	-39.	2.	8.	-45.	-627.	162.	-0.0000	-0.0000	-0.0006	-0.0000	-0.0000	.0000
20	1	175	BEG	39.	-3.	-17.	45.	627.	-162.	-0.0000	-0.0000	-0.0006	-0.0000	-0.0000	.0000
20	1	180	END	-39.	3.	17.	-45.	-1311.	273.	-0.0000	-0.0001	-0.0008	-0.0000	-0.0000	.0000
20	2	185	END	-39.	3.	17.	-45.	-1636.	325.	-0.0000	-0.0001	-0.0009	-0.0000	-0.0000	.0000
20	3	190	END	-39.	3.	17.	-13.	-1184.	325.	-0.0004	-0.0001	-0.0012	-0.0000	-0.0000	.0000
21	1	190	BEG	34.	-4.	-31.	13.	1164.	-325.	-0.0004	-0.0001	-0.0012	-0.0000	-0.0000	.0000
21	1	195	END	-34.	4.	31.	-12.	-1172.	324.	-0.0004	-0.0001	-0.0012	-0.0000	-0.0000	.0000
21	2	200	END	-34.	4.	31.	-12.	-1160.	323.	-0.0004	-0.0001	-0.0012	-0.0000	-0.0000	.0000
21	3	205	END	-34.	4.	31.	30.	203.	184.	-0.0009	-0.0000	-0.0007	-0.0000	-0.0000	.0000
22	1	205	BEG	27.	-4.	-36.	-30.	-203.	-184.	-0.0009	-0.0000	-0.0007	-0.0000	-0.0000	.0000
22	1	210	END	-27.	4.	36.	30.	564.	138.	-0.0009	.0000	-0.0004	-0.0000	-0.0000	.0000
22	2	215	END	-27.	4.	36.	30.	965.	92.	-0.0009	.0001	-0.0002	-0.0000	-0.0000	.0000
22	3	220	END	-27.	4.	36.	122.	2294.	-0.	-0.0013	.0002	.0003	-0.0000	-0.0000	.0000
23	1	220	BEG	6.	-1.	-32.	-122.	-2294.	-0.	-0.0013	.0002	.0003	-0.0000	-0.0000	.0000
23	1	225	END	-6.	1.	32.	142.	2393.	0.	-0.0014	.0002	.0003	-0.0000	-0.0000	.0000
23	2	230	END	-6.	1.	32.	187.	2619.	0.	-0.0017	.0002	.0003	.0000	-0.0000	.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-6.	1.	32.	233.	2846.	0.	-.0017	.0002	.0003	.0000	.0000	.0000
23	4	240	END	-6.	1.	32.	278.	3072.	0.	-.0015	.0002	.0003	.0000	.0000	.0000
24	1	240	BEG	-27.	2.	-27.	-278.	-3072.	0.	-.0015	.0002	.0003	.0000	.0000	.0000
24	1	245	END	27.	-2.	27.	165.	2046.	0.	-.0011	.0001	.0003	.0000	.0000	.0000
24	2	250	END	27.	-2.	27.	93.	1024.	0.	-.0006	.0001	.0003	.0000	.0000	.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	-.0000	.0003	.0000	.0000	.0000
24	3	255	END	27.	-2.	27.	-0.	-0.	0.	.0000	-.0000	.0003	.0000	.0000	.0000

NET PT SEC			NETWORK POINT REACTIONS AND DEFLECTIONS											
			F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	26.	-26.	8.	543.	1639.	-216.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	-1.	0.	0.	0.	0.	-0.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000	.0000
3	20	-1.	0.	1.	-0.	0.	-0.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000	.0000
4	30	1.	0.	1.	-0.	0.	-0.	.0000	.0000	.0000	.0000	-0.0000	.0000	.0000
5	40	3.	0.	0.	-0.	-0.	-0.	.0001	.0000	.0000	.0000	-0.0000	.0000	.0000
6	50	8.	1.	0.	-0.	0.	-0.	.0001	.0000	.0000	.0000	-0.0000	.0000	.0000
7	57	27.	3.	-1.	-0.	-0.	0.	.0001	.0000	-0.0000	.0000	-0.0000	-0.0000	.0000
8	70	2.	1.	-0.	0.	0.	0.	.0000	.0000	-0.0000	.0000	-0.0000	-0.0000	.0000
9	85	0.	-0.	-0.	-0.	0.	-0.	.0000	-0.0000	-0.0000	.0000	-0.0000	.0000	.0000
10	87	-24.	20.	0.	-309.	200.	-1443.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	-2.	-1.	-17.	-0.	0.	-0.	-0.0000	-0.0000	-0.0003	-0.0000	-0.0000	.0000	.0000
20	175	-1.	-1.	-9.	-0.	0.	-0.	-0.0000	-0.0000	-0.0006	-0.0000	-0.0000	.0000	.0000
21	190	-5.	-1.	-14.	-0.	-0.	-0.	-0.0004	-0.0001	-0.0012	-0.0000	-0.0000	.0000	.0000
22	205	-7.	-0.	-6.	0.	0.	-0.	-0.0009	-0.0000	-0.0007	-0.0000	-0.0000	.0000	.0000
23	220	-21.	3.	4.	0.	0.	-0.	-0.0013	.00002	.00003	-0.0000	-0.0000	.0000	.0000
24	240	-33.	4.	6.	-0.	-0.	0.	-0.0015	.00002	.00003	.0000	.0000	.0000	.0000
25	255	27.	-2.	27.	-0.	-0.	0.	.0000	-0.0000	.00003	.0000	.0000	.0000	.0000

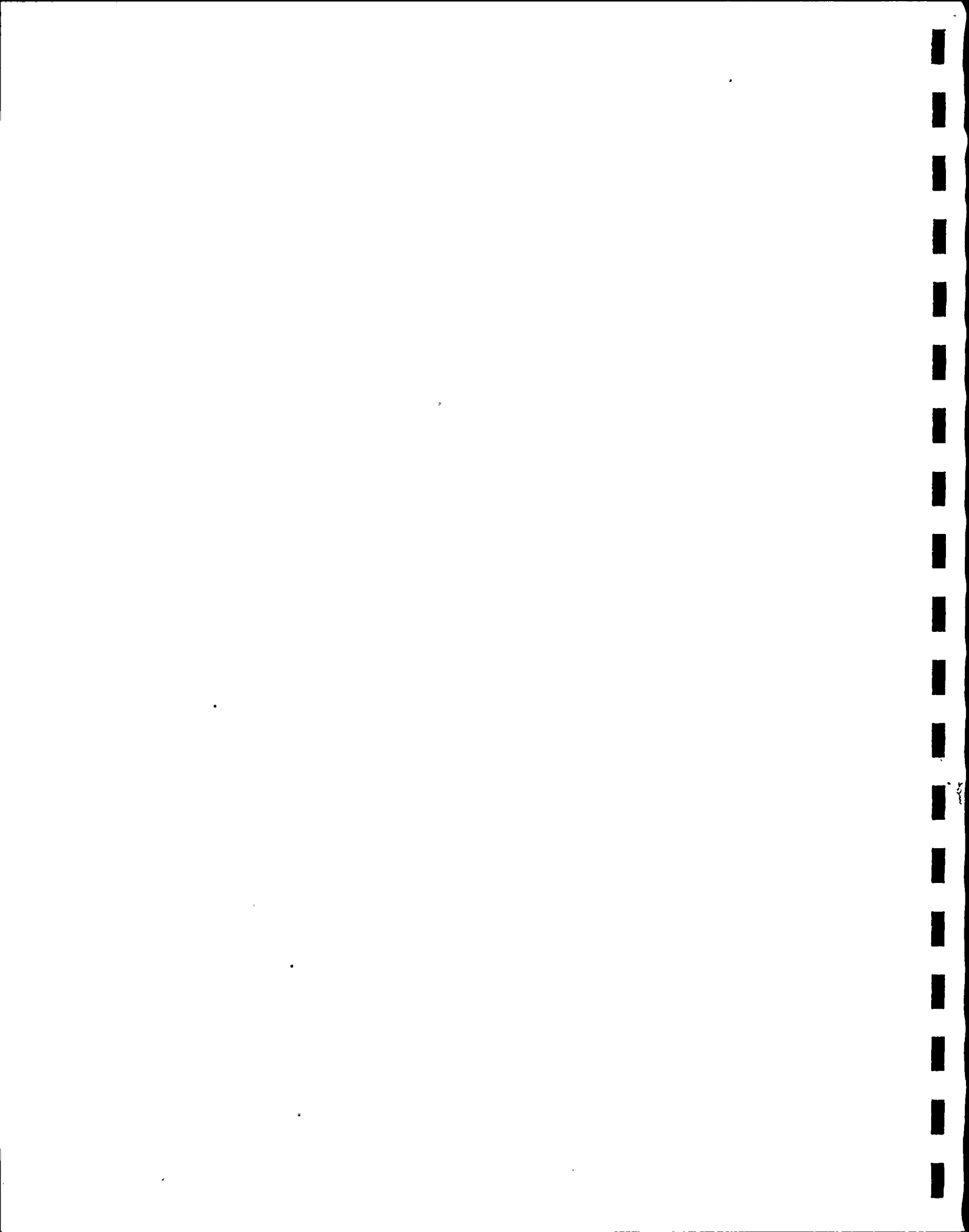
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK
MODE 5 FREQUENCY 11.59

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS			DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
				MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)						

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK



LOADS
SHOCK

SC	HE	SEQ	POS	MODE FX (LB)	6 FREQUENCY FY (LB)	FZ (LB)	13.07 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	3.	15.	0.	-400.	34.	120.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-3.	-15.	-0.	391.	-32.	-118.	-0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0000
1	2	15	END	-3.	-15.	-0.	-275.	115.	174.	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.0000
2	1	15	BEG	3.	14.	0.	275.	-115.	-174.	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.0000
2	1	20	END	-3.	-14.	-0.	-282.	115.	246.	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.0000
3	1	20	BEG	6.	3.	2.	-336.	59.	889.	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.0000
3	1	25	END	-6.	-3.	-2.	262.	-59.	-681.	0.0000	-0.0000	-0.0000	-0.0000	0.0000	-0.0000
3	2	30	END	-6.	-3.	-2.	186.	-59.	-474.	0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000
4	1	30	BEG	6.	3.	2.	-186.	59.	474.	0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000
4	1	35	END	-6.	-3.	-2.	114.	-59.	-265.	-0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000
4	2	40	END	-6.	-3.	-2.	42.	-59.	-56.	-0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000
5	1	40	BEG	5.	3.	2.	-42.	59.	56.	-0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000
5	1	45	END	-5.	-3.	-2.	-20.	-59.	130.	-0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000
5	2	50	END	-5.	-3.	-2.	-83.	-59.	317.	-0.0000	-0.0000	-0.0000	0.0000	-0.0000	-0.0000
6	1	50	BEG	3.	2.	1.	83.	59.	-317.	-0.0000	-0.0000	-0.0000	0.0000	-0.0000	-0.0000
6	1	55	END	-3.	-2.	-1.	-144.	-59.	505.	-0.0000	-0.0000	-0.0000	0.0000	-0.0000	-0.0000
6	2	57	END	-3.	-2.	-1.	-211.	-59.	710.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000
7	1	57	BEG	-6.	0.	-2.	211.	59.	-710.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000
7	1	60	END	6.	-0.	2.	-133.	-59.	487.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000
7	2	65	END	6.	-0.	2.	-55.	-59.	263.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000
7	3	70	END	6.	-0.	2.	11.	-59.	74.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000
8	1	70	BEG	-6.	-0.	-2.	-11.	59.	-74.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000
8	1	75	END	6.	0.	2.	12.	-59.	70.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000
8	2	80	END	6.	0.	2.	115.	76.	-238.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000

8 2 80 END 6. 0. 2. 115. 76. -238. -.0000 -.0000 -.0000 -.0000 -.0000 .0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
8	3	85	END	6.	0.	2.	115.	76.	-238.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000
9	1	85	BEG	-6.	-0.	-2.	-115.	-76.	238.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000
9	1	86	END	6.	0.	2.	114.	164.	-251.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000
9	2	87	END	6.	0.	2.	-12.	154.	84.	0.0000	-.0000	-.0000	-.0000	-.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 42

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-2.	11.	-2.	620.	-174.	-1135.	.0000	-.0000	-.0000	-.0000	.0000	.0000
18	1	160	END	2.	-11.	2.	-620.	113.	802.	.0000	-.0000	.0000	-.0000	.0000	.0000
18	2	165	END	2.	-11.	2.	-620.	52.	469.	.0000	-.0001	.0000	-.0000	.0000	.0000
18	3	167	END	2.	-11.	2.	-620.	-28.	33.	.0000	-.0002	.0000	-.0000	.0000	.0000
19	1	167	BEG	-2.	-8.	1.	620.	28.	-33.	.0000	-.0002	.0000	-.0000	.0000	.0000
19	1	170	END	2.	8.	-1.	-620.	3.	337.	.0000	-.0003	.0001	-.0000	.0000	.0000
19	2	175	END	2.	8.	-1.	-620.	33.	641.	.0000	-.0005	.0001	-.0000	.0000	.0000
20	1	175	BEG	-2.	-17.	2.	620.	-33.	-641.	.0000	-.0005	.0001	-.0000	.0000	.0000
20	1	180	END	2.	17.	-2.	-620.	117.	1341.	.0000	-.0007	.0001	-.0000	.0000	.0000
20	2	185	END	2.	17.	-2.	-620.	158.	1674.	.0000	-.0008	.0001	-.0000	.0000	.0000
20	3	190	END	2.	17.	-2.	-251.	159.	2044.	.0000	-.0009	.0001	-.0000	.0000	.0000
21	1	190	BEG	-2.	-31.	4.	251.	-159.	-2044.	.0000	-.0009	.0001	-.0000	.0000	.0000
21	1	195	END	2.	31.	-4.	-241.	158.	2044.	.0000	-.0009	.0001	-.0000	.0000	.0000
21	2	200	END	2.	31.	-4.	-230.	158.	2044.	.0000	-.0009	.0001	-.0000	.0000	.0000
21	3	205	END	2.	31.	-4.	420.	39.	1401.	.0000	-.0003	.0001	-.0000	.0000	.0000
22	1	205	BEG	-2.	-33.	4.	-420.	-39.	-1401.	.0000	-.0003	.0001	-.0000	.0000	.0000
22	1	210	END	2.	33.	-4.	420.	-7.	1051.	.0000	.0000	.0000	-.0000	.0000	.0000
22	2	215	END	2.	33.	-4.	420.	-52.	701.	.0000	.0003	.0000	-.0000	.0000	.0000
22	3	220	END	2.	33.	-4.	1120.	-179.	-0.	.0001	.0011	-.0000	-.0000	.0000	.0000
23	1	220	BEG	-1.	-11.	4.	-1120.	179.	-0.	.0001	.0011	-.0000	-.0000	.0000	.0000
23	1	225	END	1.	11.	-4.	1304.	-188.	0.	.0001	.0012	-.0000	-.0000	.0000	.0000
23	2	230	END	1.	11.	-4.	1723.	-210.	0.	.0001	.0013	-.0000	-.0000	.0000	.0000

ADLPIPE PAGE 43

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

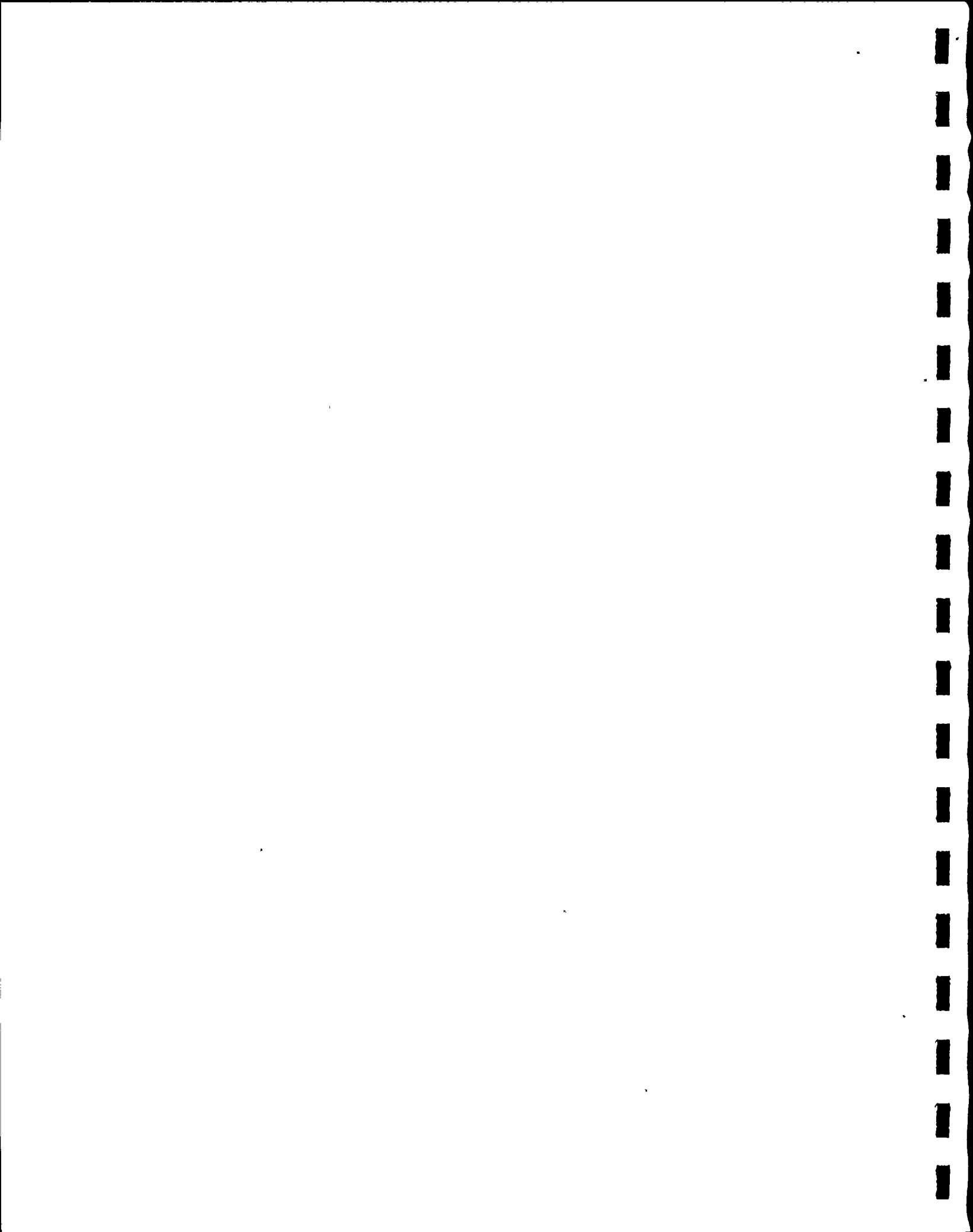
ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 43

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	1.	11.	-4.	2142.	-231.	0.	.0001	.0014	-.0000	.0000	.0000	.0000
23	4	240	END	1.	11.	-4.	2561.	-252.	0.	.0001	.0012	-.0000	.0000	-.0000	.0000
24	1	240	BEG	2.	23.	3.	-2561.	252.	-0.	.0001	.0012	-.0000	.0000	-.0000	.0000
24	1	245	END	-2.	-23.	-3.	1707.	-160.	0.	.0001	.0009	-.0000	.0000	-.0000	.0000
24	2	250	END	-2.	-23.	-3.	854.	-84.	0.	.0000	.0005	-.0000	.0000	-.0000	.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0000	-.0000	.0000
24	3	255	END	-2.	-23.	-3.	-0.	0.	0.	-.0000	-.0000	-.0000	.0000	-.0000	.0000



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Y SHGCK
 MCCE 6 FREQUENCY 13.07

NET PT SEG		NETWORK POINT REACTIONS AND DEFLECTIONS											
		FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	3.	15.	0.	-400.	34.	120.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	0.	-0.	-0.	-0.	-0.	-0.	.0000	-.0000	-.0000	-.0000	.0000	.0000
3	20	0.	-0.	-0.	0.	-0.	-0.	.0000	-.0000	-.0000	-.0000	.0000	.0000
4	30	0.	-0.	-0.	-0.	-0.	0.	.0000	-.0000	-.0000	.0000	.0000	-.0000
5	40	-1.	-0.	-0.	-0.	-0.	0.	-.0000	-.0000	-.0000	.0000	.0000	-.0000
6	50	-2.	-1.	-1.	-0.	0.	0.	-.0000	-.0000	-.0000	.0000	-.0000	-.0000
7	57	-9.	-2.	-3.	0.	-0.	-0.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000
8	70	-1.	-0.	-0.	0.	0.	-0.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000
9	85	-0.	-0.	-0.	0.	0.	-0.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000
10	87	6.	0.	2.	-12.	164.	84.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	0.	-18.	3.	-0.	-0.	-0.	.0000	-.0002	.0000	-.0000	.0000	.0000
20	175	0.	-10.	1.	-0.	-0.	-0.	.0000	-.0005	.0001	-.0000	.0000	.0000
21	190	0.	-13.	2.	-0.	0.	-0.	.0000	-.0009	.0001	-.0000	.0000	.0000
22	205	0.	-3.	1.	0.	-0.	-0.	.0000	-.0003	.0001	-.0000	.0000	.0000
23	220	1.	22.	-0.	0.	-0.	-0.	.0001	.0011	-.0000	-.0000	.0000	.0000
24	240	3.	34.	-1.	0.	-0.	0.	.0001	.0012	-.0000	.0000	-.0000	.0000
25	255	-2.	-23.	-3.	-0.	0.	0.	-.0000	-.0000	-.0000	.0000	-.0000	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK
MODE 6 FREQUENCY 13.07

NET PT SEG	F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
------------	------------------------	------------------------	------------------------	---------------------------	---------------------------	---------------------------	------------------------	------------------------	------------------------	-------------------------	-------------------------	-------------------------

ADLPIPE PAGE 46

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

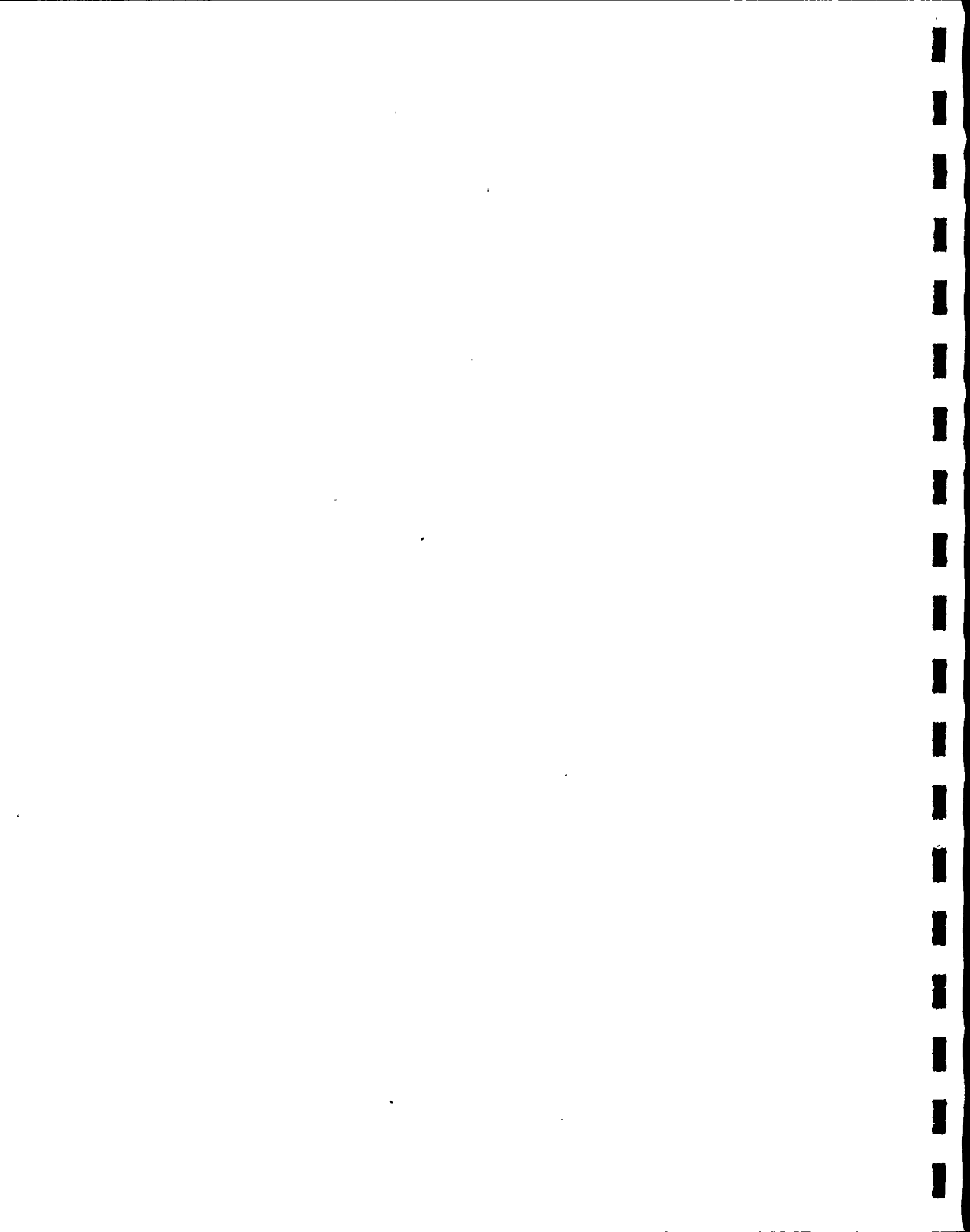
ADLPIPE PAGE 46

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCKLOADS
SHOCK

SC	ME	SEG	POS	MCDE FX (LB)	7 FREQUENCY FY (LB)	FZ (LB)	13.84 PX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	OX (IN)	OY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	2	15	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	15	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	20	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	25	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	2	30	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	30	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	35	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	2	40	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	40	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	45	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2	50	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	50	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	55	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	2	57	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	57	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	60	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	2	65	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	3	70	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	70	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	75	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	2	80	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 47

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK



ADLPIPE PAGE 47

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Y SHOCK

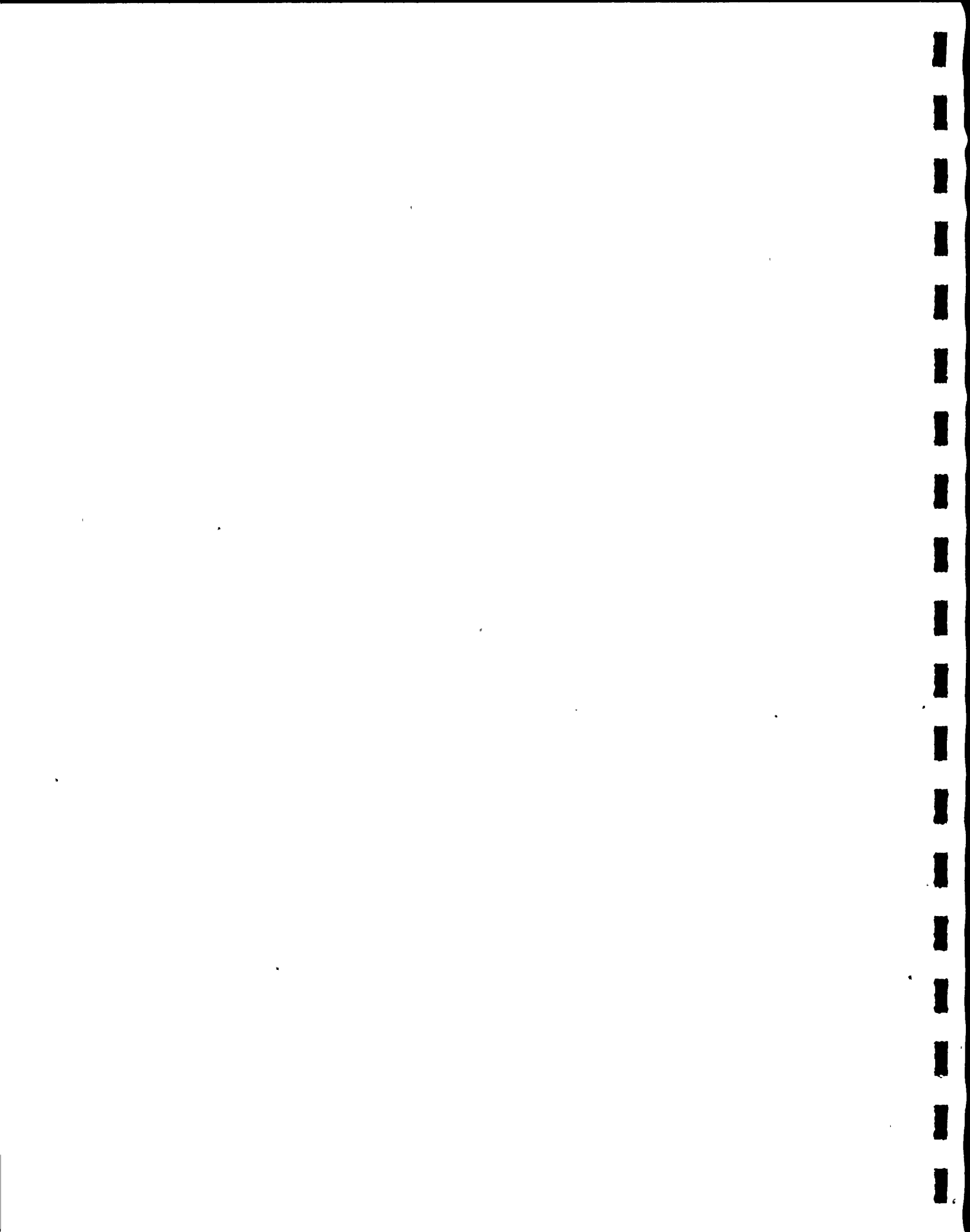
ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
8	3	85	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	85	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	86	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	2	87	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	87	BEG	-355.	-107.	-511.	-22793.	43495.	9252.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	355.	107.	511.	23401.	-29429.	-12822.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
10	2	90	END	355.	107.	511.	20306.	-16498.	-13380.	0.0000	0.0000	0.0000	0.0000	-0.0000	-0.0000
11	1	90	BEG	-346.	-101.	-504.	-20306.	16498.	13380.	0.0000	0.0000	0.0000	0.0000	-0.0000	-0.0000
11	1	95	END	346.	101.	504.	20247.	-16244.	-13390.	0.0000	0.0000	0.0000	0.0000	-0.0000	-0.0000
11	2	100	END	346.	101.	504.	-6892.	3088.	1361.	0.0008	0.0006	0.0009	0.0000	-0.0000	-0.0000
12	1	100	BEG	-253.	-39.	-400.	6892.	-3088.	-1361.	0.0008	0.0006	0.0009	0.0000	-0.0000	-0.0000
12	1	105	END	253.	39.	400.	-12885.	3088.	5158.	0.0010	0.0006	0.0012	0.0000	-0.0000	-0.0000
12	2	107	END	253.	39.	400.	-34858.	3088.	19082.	0.0014	0.0006	0.0022	0.0000	-0.0000	-0.0000
13	1	107	BEG	-46.	45.	-78.	34858.	-3088.	-19082.	0.0014	0.0006	0.0022	0.0000	-0.0000	-0.0000
13	1	110	END	46.	-45.	78.	-37621.	3088.	20716.	0.0016	0.0006	0.0026	0.0000	-0.0000	-0.0000
13	2	115	END	46.	-45.	78.	-40383.	3088.	22351.	0.0016	0.0006	0.0028	0.0000	-0.0000	-0.0000
14	1	115	BEG	54.	79.	95.	40343.	-3088.	-22351.	0.0016	0.0006	0.0028	0.0000	-0.0000	-0.0000
14	1	120	END	-54.	-79.	-95.	-37020.	3088.	20423.	0.0016	0.0006	0.0028	-0.0000	-0.0000	0.0000
14	2	125	END	-54.	-79.	-95.	-33656.	3088.	18494.	0.0014	0.0006	0.0026	-0.0000	-0.0000	0.0000
15	1	125	BEG	155.	119.	281.	33656.	-3088.	-18494.	0.0014	0.0006	0.0026	-0.0000	-0.0000	0.0000
15	1	130	END	-155.	-119.	-281.	-20159.	3088.	11056.	0.0010	0.0006	0.0020	-0.0000	-0.0000	0.0000
15	2	135	END	-155.	-119.	-281.	-6663.	3088.	3619.	0.0005	0.0006	0.0012	-0.0000	-0.0000	0.0000
16	1	135	BEG	168.	160.	366.	6663.	-3088.	-3619.	0.0005	0.0006	0.0012	-0.0000	-0.0000	0.0000
16	1	140	END	-188.	-160.	-366.	-1963.	3088.	1201.	0.0003	0.0006	0.0009	-0.0000	-0.0000	0.0000
16	2	145	END	-188.	-160.	-366.	17222.	9412.	-11428.	-0.0000	0.0001	0.0001	-0.0000	-0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 48

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK
ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	-168.	-160.	-366.	17339.	9528.	-11539.	-.0000	.0001	.0001	-.0000	-.0000	.0000
17	1	150	BEG	188.	164.	369.	-17339.	-9528.	11539.	-.0000	.0001	.0001	-.0000	-.0000	.0000
17	1	155	END	-188.	-164.	-369.	23886.	16066.	-17775.	.0000	-.0000	-.0000	-.0000	-.0000	-.0000
18	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	160	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	2	165	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	3	167	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	167	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	170	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	2	175	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	175	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	180	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	2	185	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	3	190	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	190	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	195	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	2	200	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	3	205	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	205	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	210	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	2	215	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	3	220	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	220	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	225	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	2	230	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK
ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 49

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	4	240	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	240	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	245	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	2	250	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	20	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	30	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	40	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	50	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	57	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	70	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	85	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	87	-355.	-107.	-511.	-22793.	43495.	9452.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	9.	8.	7.	0.	0.	0.	.0000	.0000	.0000	.0000	-.0000	-.0000
12	100	93.	62.	104.	-0.	0.	0.	.0008	.0006	.0009	.0000	-.0000	-.0000
13	107	207.	84.	322.	-0.	-0.	0.	.0014	.0006	.0022	.0000	-.0000	-.0000
14	115	100.	34.	173.	-0.	0.	0.	.0016	.0006	.0028	.0000	-.0000	-.0000
15	125	101.	40.	186.	0.	0.	-0.	.0014	.0006	.0026	-.0000	-.0000	.0000
16	135	33.	46.	85.	-0.	-0.	0.	.0005	.0006	.0012	-.0000	-.0000	.0000
17	150	-1.	4.	3.	0.	0.	-0.	-.0000	.0001	.0001	-.0000	-.0000	.0000
18	155	-188.	-164.	-369.	23886.	-16066.	-17775.	.0000	-.0000	-.0000	-.0000	-.0000	-.0000
19	167	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	175	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	190	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	205	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	220	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	240	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	255	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

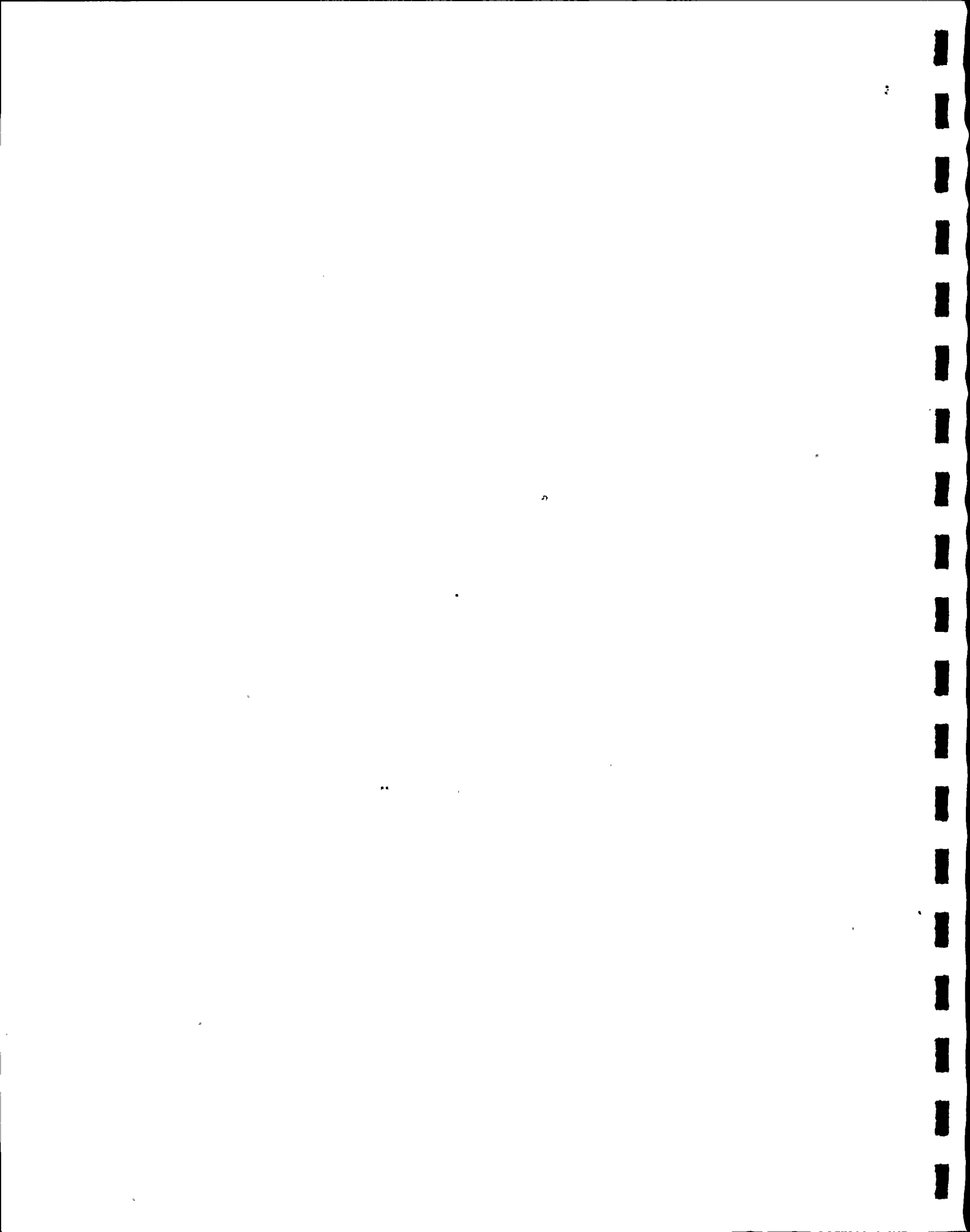
ADLPIPE PAGE 51

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK
MODE 7 FREQUENCY 13.84

NET PT SEG	FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS										
				HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)		

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK



ADLPIPE PAGE 52

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE

NINE MILE POWER STAT. MODEL 1 Y SHOCK
8, FREQUENCY 15.60

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 53

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCKLOADS
CHECK

SC	ME	SEQ	POS	MODE FX (LB)	9 FREQUENCY FY (LB)	FZ (LB)	15,93 HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	60.	9.	-169.	3962.	-3400.	4937.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-60.	-9.	169.	-3967.	3450.	-4936.	-0.0000	-0.0000	0.0000	-0.0000	0.0000	-0.0000
1	2	15	END	-60.	-9.	169.	3256.	7681.	-2152.	0.0001	0.0001	0.0001	-0.0000	0.0000	-0.0000
2	1	15	BEG	64.	13.	-165.	-3256.	-7681.	2152.	0.0001	0.0001	0.0001	-0.0000	0.0000	-0.0000
2	1	20	END	-64.	-13.	165.	6711.	7681.	-808.	0.0001	0.0001	0.0001	-0.0000	0.0000	-0.0000
3	1	20	BEG	7.	44.	33.	-6611.	2347.	-314.	0.0001	0.0001	0.0001	-0.0000	0.0000	-0.0000
3	1	25	END	-7.	-44.	-33.	5436.	-2347.	578.	0.0000	0.0001	0.0001	-0.0000	0.0000	-0.0000
3	2	30	END	-7.	-44.	-33.	4261.	-2347.	842.	-0.0000	0.0001	0.0001	0.0000	0.0000	-0.0000
4	1	30	BEG	7.	51.	43.	-4261.	2347.	-842.	-0.0000	0.0001	0.0001	0.0000	0.0000	-0.0000
4	1	35	END	-7.	-51.	-43.	2732.	-2347.	1077.	-0.0000	0.0001	0.0001	0.0000	0.0000	-0.0000
4	2	40	END	-7.	-51.	-43.	1203.	-2347.	1312.	-0.0001	0.0001	0.0000	0.0000	0.0000	-0.0000
5	1	40	BEG	2.	57.	45.	-1203.	2347.	-1312.	-0.0001	0.0001	0.0000	0.0000	0.0000	-0.0000
5	1	45	END	-2.	-57.	-45.	-394.	-2347.	1386.	-0.0001	0.0001	-0.0000	0.0000	0.0000	-0.0000
5	2	50	END	-2.	-57.	-45.	-1990.	-2347.	1461.	-0.0001	0.0001	-0.0001	0.0000	0.0000	0.0000
6	1	50	BEG	-7.	65.	32.	1990.	2347.	-1461.	-0.0001	0.0001	-0.0001	0.0000	0.0000	0.0000
6	1	55	END	7.	-65.	-32.	-3920.	-2347.	1060.	-0.0001	0.0001	-0.0002	0.0000	0.0000	0.0000
6	2	57	END	7.	-65.	-32.	-6011.	-2347.	626.	-0.0000	0.0001	-0.0002	0.0000	0.0000	0.0000
7	1	57	BEG	-20.	94.	-53.	6011.	2347.	-626.	-0.0000	0.0001	-0.0002	0.0000	0.0000	0.0000
7	1	60	END	20.	-94.	53.	-3897.	-2347.	-150.	-0.0000	0.0001	-0.0002	-0.0000	0.0000	0.0000
7	2	65	END	20.	-94.	53.	-1784.	-2347.	-926.	0.0000	0.0001	-0.0001	-0.0000	0.0000	0.0000
7	3	70	END	20.	-94.	53.	11.	-2347.	-1585.	0.0000	0.0001	-0.0001	-0.0000	-0.0000	0.0000
8	1	70	BEG	-17.	101.	-62.	-11.	2347.	1585.	0.0000	0.0001	-0.0001	-0.0000	-0.0000	0.0000
8	1	75	END	17.	-101.	62.	48.	-2347.	-1546.	0.0000	0.0001	-0.0001	-0.0000	-0.0000	0.0000
8	2	80	END	17.	-101.	62.	3355.	529.	2158.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000

ADLPIPE PAGE 54

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK



8 2 80 END 17. -101. 62. 3355. 529. 2158. -.0000 .0000 -.0000 -.0000 -.0000 -.0000

ADLPIPE PAGE 54

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	17.	-101.	62.	3362.	567.	2218.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
9	1	85	BEG	-20.	105.	-64.	-3362.	-567.	-2218.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
9	1	86	END	20.	-105.	64.	3365.	2366.	5069.	-.0000	.0000	.0000	-.0000	-.0000	-.0000
9	2	87	END	20.	-105.	64.	355.	2366.	6121.	.0000	.0000	-.0000	-.0000	-.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 55

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	60.	-26.	-189.	-100.	-10028.	1122.	.0001	.0001	.0001	-.0000	.0000	-.0000
18	1	160	END	-60.	26.	189.	100.	4195.	-321.	.0001	.0001	.0005	-.0000	.0000	-.0000
18	2	165	END	-60.	26.	189.	100.	-1637.	480.	.0000	.0002	.0012	-.0000	.0000	-.0000
18	3	167	END	-60.	26.	189.	100.	-9270.	1528.	.0000	.0003	.0019	-.0000	.0000	-.0000
19	1	167	BEG	66.	7.	39.	-100.	9270.	-1528.	.0000	.0003	.0019	-.0000	.0000	-.0000
19	1	170	END	-66.	-7.	-39.	100.	-7691.	1229.	.0000	.0003	.0021	-.0000	-.0000	.0000
19	2	175	END	-66.	-7.	-39.	100.	-6111.	931.	.0000	.0002	.0017	.0000	-.0000	.0000
20	1	175	BEG	67.	12.	90.	-100.	6111.	-931.	.0000	.0002	.0017	.0000	-.0000	.0000
20	1	180	END	-67.	-12.	-90.	100.	-2517.	455.	.0000	-.0000	.0008	.0000	-.0000	.0000
20	2	185	END	-67.	-12.	-90.	100.	-805.	228.	.0000	-.0002	.0002	.0000	-.0000	.0000
20	3	190	END	-67.	-12.	-90.	-15.	2490.	-122.	-.0005	-.0003	-.0004	.0000	-.0000	.0000
21	1	190	BEG	56.	5.	82.	15.	-2490.	122.	-.0005	-.0003	-.0004	.0000	-.0000	.0000
21	1	195	END	-56.	-5.	-82.	-15.	2510.	-123.	-.0005	-.0003	-.0004	.0000	-.0000	.0000
21	2	200	END	-56.	-5.	-82.	-14.	2530.	-125.	-.0005	-.0003	-.0004	.0000	-.0000	.0000
21	3	205	END	-56.	-5.	-82.	-5.	1984.	-95.	-.0008	-.0002	-.0002	.0000	.0000	.0000
22	1	205	BEG	44.	2.	79.	5.	-1984.	95.	-.0008	-.0002	-.0002	.0000	.0000	.0000
22	1	210	END	-44.	-2.	-79.	-5.	1159.	-71.	-.0008	-.0002	-.0002	-.0000	.0000	.0000
22	2	215	END	-44.	-2.	-79.	-5.	333.	-47.	-.0008	-.0001	-.0003	.0000	.0000	.0000
22	3	220	END	-44.	-2.	-79.	-53.	-399.	-0.	-.0008	-.0006	-.0003	.0000	-.0000	.0000
23	1	220	BEG	18.	1.	70.	53.	399.	-0.	-.0008	-.0000	-.0003	.0000	-.0000	.0000
23	1	225	END	-18.	-1.	-70.	-72.	-103.	0.	-.0009	-.0000	-.0003	.0000	-.0000	.0000
23	2	230	END	-18.	-1.	-70.	-116.	574.	0.	-.0009	-.0001	-.0003	.0000	-.0000	.0000

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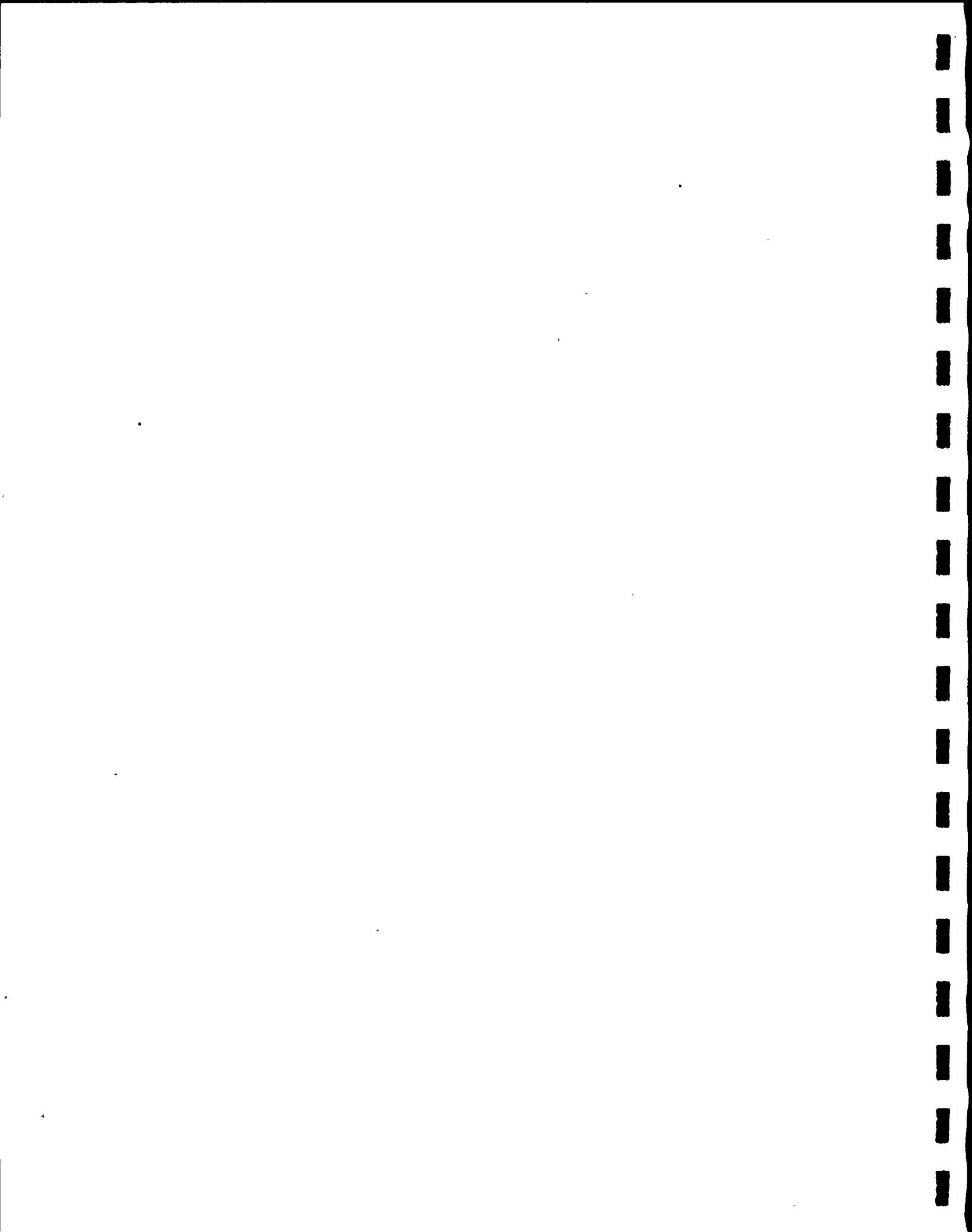
ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	OX (IN)	OY (IN)	OZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-18.	-1.	-70.	-159.	1250.	0.	-.0009	-.0001	-.0003	.0000	.0000	.0000
23	4	240	END	-18.	-1.	-70.	-203.	1926.	0.	-.0009	-.0001	-.0003	-.0000	.0000	.0000
24	1	240	BEG	-17.	-2.	58.	203.	-1926.	0.	-.0009	-.0001	-.0003	-.0000	.0000	.0000
24	1	245	END	17.	2.	-58.	-135.	1284.	0.	-.0007	-.0001	-.0003	-.0000	.0000	.0000
24	2	250	END	17.	2.	-58.	-68.	642.	0.	-.0003	-.0000	-.0003	-.0000	.0000	.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	.0000	-.0003	-.0000	.0000	.0000
24	3	255	END	17.	2.	-58.	0.	-0.	0.	.0000	.0000	-.0003	-.0000	.0000	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS



NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS												
		F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)	
1	5	60.	9.	-169.	3962.	-3400.	4937.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	15	4.	4.	5.	0.	0.	-0.	.0001	.0001	.0001	-.0000	.0000	-.0000	
3	20	4.	5.	9.	0.	-0.	0.	.0001	.0001	.0001	-.0000	.0000	-.0000	
4	30	-1.	6.	10.	-0.	-0.	0.	-.0000	.0001	.0001	.0000	.0000	-.0000	
5	40	-5.	6.	2.	-0.	0.	0.	-.0001	.0001	.0000	.0000	.0000	-.0000	
6	50	-9.	9.	-13.	-0.	-0.	0.	-.0001	.0001	-.0001	.0000	.0000	.0000	
7	57	-13.	29.	-86.	-0.	0.	-0.	-.0000	.0001	-.0002	.0000	.0000	.0000	
8	70	2.	7.	-9.	0.	0.	-0.	.0000	.0001	-.0001	-.0000	-.0000	.0000	
9	85	-3.	4.	-2.	0.	0.	0.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000	
10	87	20.	-105.	64.	355.	2366.	6121.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
19	167	6.	33.	228.	-0.	-0.	0.	.0000	.0003	.0019	-.0000	.0000	-.0000	
20	175	1.	4.	50.	-0.	0.	-0.	.0000	.0002	.0017	.0000	-.0000	.0000	
21	190	-11.	-6.	-8.	-0.	0.	-0.	-.0005	-.0003	-.0004	.0000	-.0000	.0000	
22	205	-12.	-3.	-3.	0.	0.	-0.	-.0008	-.0002	-.0002	.0000	.0000	.0000	
23	220	-26.	-1.	-9.	0.	0.	-0.	-.0008	-.0000	-.0003	.0000	-.0000	.0000	
24	240	-35.	-3.	-12.	-0.	-0.	0.	-.0009	-.0001	-.0003	-.0000	.0000	.0000	
25	255	17.	2.	-58.	0.	-0.	0.	.0000	.0000	-.0003	-.0000	.0000	.0000	

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCODE 1 Y SHOCK
MCDE 9 FREQUENCY 15.93

NET PT SEG	F _X	F _Y	F _Z	NETWORK POINT REACTIONS AND DEFLECTIONS			D _X	D _Y	D _Z	R _X	R _Y	R _Z
	(LB)	(LB)	(LB)	M _X	M _Y	M _Z	(IN)	(IN)	(IN)	(RAD)	(RAD)	(RAD)
				(IN-LB)	(IN-LB)	(IN-LB)						

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCODE 1 Y SHOCK

ADLPIPE PAGE 59

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCKLOADS
SHOCK

SC	ME	SEC	POS	MODE	10 FREQ	FZ	18.09	MY	MZ	DX	DY	DZ	RX	RY	RZ
					FX	FY	MX	(IN-LB)	(IN-LB)	(IN)	(IN)	(IN)	(RAD)	(RAD)	(RAD)
					(LB)	(LB)	(LB)								
1	1	5	BEG		87.	-673.	13.	20416.	8043.	1742.	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END		-87.	673.	-13.	-20021.	-5993.	-1826.	-0.0000	.0000	.0000	-0.0000	-0.0000
1	2	15	END		-87.	673.	-13.	9005.	-2285.	-4204.	-0.0003	.0003	.0004	-0.0000	-0.0000
2	1	15	BEG		66.	-651.	37.	-9005.	2285.	4204.	-0.0003	.0003	.0004	-0.0000	-0.0000
2	1	20	END		-66.	651.	-37.	8222.	-2285.	-2819.	-0.0005	.0003	.0004	-0.0000	-0.0000
3	1	20	BEG		-46.	-122.	-16.	-5715.	-1431.	-22607.	-0.0005	.0003	.0004	-0.0000	-0.0000
3	1	25	END		46.	122.	16.	6294.	1431.	20964.	-0.0006	.0003	.0004	-0.0000	-0.0000
3	2	30	END		46.	122.	16.	6872.	1431.	19320.	-0.0007	.0003	.0004	.0000	-0.0000
4	1	30	BEG		-118.	-86.	29.	-6872.	-1431.	-19320.	-0.0007	.0003	.0004	.0000	-0.0000
4	1	35	END		118.	86.	-29.	5828.	1431.	15124.	-0.0006	.0003	.0004	.0000	-0.0000
4	2	40	END		118.	86.	-29.	4823.	1431.	10928.	-0.0005	.0003	.0003	.0000	-0.0000
5	1	40	BEG		-168.	-51.	62.	-4823.	-1431.	-10928.	-0.0005	.0003	.0003	.0000	-0.0000
5	1	45	END		168.	51.	-62.	2615.	1431.	4939.	-0.0003	.0003	.0002	.0000	-0.0000
5	2	50	END		168.	51.	-62.	406.	1431.	-1051.	-0.0000	.0003	.0001	.0000	-0.0000
6	1	50	BEG		-174.	4.	78.	-406.	-1431.	1051.	-0.0000	.0003	.0001	.0000	-0.0000
6	1	55	END		174.	-4.	-78.	-4253.	1431.	-11465.	.0003	.0003	-0.0001	.0000	-0.0000
6	2	57	END		174.	-4.	-78.	-9301.	1431.	-22745.	.0006	.0003	-0.0003	.0000	-0.0000
7	1	57	BEG		139.	185.	-57.	9301.	-1431.	22745.	.0006	.0003	-0.0003	.0000	-0.0000
7	1	60	END		-139.	-185.	57.	-7028.	1431.	-17224.	.0006	.0003	-0.0003	.0000	-0.0000
7	2	65	END		-139.	-185.	57.	-4755.	1431.	-11703.	.0005	.0003	-0.0003	-0.0000	-0.0000
7	3	70	END		-139.	-185.	57.	-2826.	1431.	-7015.	.0003	.0003	-0.0002	-0.0000	-0.0000
8	1	70	BEG		183.	230.	-90.	2826.	-1431.	7015.	.0003	.0003	-0.0002	-0.0000	-0.0000
8	1	75	END		-183.	-230.	90.	-2772.	1431.	-6905.	.0003	.0003	-0.0002	-0.0000	-0.0000
8	2	80	END		-183.	-230.	90.	2405.	4547.	11629.	-0.0000	.0006	-0.0000	-0.0000	-0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 60

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-183.	-230.	90.	2420.	4589.	11766.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
9	1	85	BEG	176.	243.	-98.	-2420.	-4589.	-11766.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
9	1	86	END	-176.	-243.	98.	3167.	6694.	18361.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
9	2	87	END	-176.	-243.	98.	-1905.	6694.	9194.	.0000	.0000	-.0000	-.0000	-.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

SC	ME	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	71.	-499.	89.	-2507.	3716.	25426.	-.0005	.0003	.0004	-.0000	-.0000	-.0000
18	1	160	END	-71.	499.	-89.	2507.	-973.	-10006.	-.0005	.0011	.0001	.0000	-.0000	-.0000
18	2	165	END	-71.	499.	-89.	2507.	1770.	5413.	-.0005	.0025	-.0003	.0000	-.0000	-.0000
18	3	167	END	-71.	499.	-89.	2507.	5359.	25593.	-.0005	.0039	-.0007	.0000	-.0000	-.0000
19	1	167	BEG	0.	112.	-24.	-2507.	-5359.	-25593.	-.0005	.0039	-.0007	.0000	-.0000	-.0000
19	1	170	END	-0.	-112.	24.	2507.	4414.	21091.	-.0005	.0040	-.0008	.0000	.0000	.0000
19	2	175	END	-0.	-112.	24.	2507.	3469.	16588.	-.0005	.0023	-.0006	.0000	.0000	.0001
20	1	175	BEG	-17.	200.	-46.	-2507.	-3469.	-16588.	-.0005	.0023	-.0006	.0000	.0000	.0001
20	1	180	END	17.	-200.	46.	2507.	1643.	8580.	-.0005	-.0008	-.0000	.0000	.0000	.0001
20	2	185	END	17.	-200.	46.	2507.	774.	4766.	-.0005	-.0026	.0003	.0000	.0000	.0001
20	3	190	END	19.	-200.	46.	-1743.	-544.	598.	-.0002	-.0057	.0007	.0000	.0000	.0001
21	1	190	BEG	-24.	42.	-25.	1743.	544.	-598.	-.0002	-.0057	.0007	.0000	.0000	.0001
21	1	195	END	24.	-42.	25.	-1759.	-552.	599.	-.0002	-.0057	.0007	.0000	.0000	.0001
21	2	200	END	24.	-42.	25.	-1774.	-560.	599.	-.0002	-.0057	.0007	.0000	.0000	.0001
21	3	205	END	24.	-42.	25.	-2692.	-536.	1518.	-.0001	-.0046	.0005	.0000	.0000	.0001
22	1	205	BEG	-25.	42.	-25.	2692.	536.	-1518.	-.0001	-.0046	.0005	.0000	.0000	.0001
22	1	210	END	25.	36.	15.	-2692.	-379.	1138.	-.0001	-.0028	.0004	.0000	.0000	.0001
22	2	215	END	25.	36.	15.	-2692.	-221.	759.	-.0001	-.0015	.0003	.0000	.0000	.0001
22	3	220	END	25.	36.	15.	-1933.	-438.	-0.	.0001	.0007	.0000	.0000	.0000	.0001
23	1	220	BEG	-19.	46.	-13.	1933.	438.	-0.	.0001	.0007	.0000	.0000	.0000	.0001
23	1	225	END	19.	6.	13.	-1832.	-754.	0.	.0003	.0006	.0000	.0000	.0000	.0001
23	2	230	END	19.	6.	13.	-1600.	-1478.	0.	.0006	.0002	.0000	.0000	.0000	.0001

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
23	3	235	END	19.	6.	13.	-1368.	-2202.	0.	.0008	.0006	.0000	.0000	.0000	.0001
23	4	240	END	19.	6.	13.	-1137.	-2926.	0.	.0009	-.0001	.0000	.0000	-.0000	.0001
24	1	240	SEG	26.	-10.	-11.	1137.	2926.	0.	.0009	-.0001	.0000	.0000	-.0000	.0001
24	1	245	END	-26.	10.	11.	-756.	-1950.	0.	.0007	-.0001	.0000	-.0000	-.0000	.0001
24	2	250	END	-26.	10.	11.	-379.	-975.	0.	.0004	-.0001	.0000	-.0000	-.0000	.0001
24	3	255	OIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	.0000	-.0000	-.0000	.0001
24	3	255	END	-26.	10.	11.	0.	0.	0.	-.0000	-.0000	.0000	-.0000	-.0000	.0001

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	87.	-673.	13.	20416.	6043.	1742.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	-21.	22.	24.	0.	-0.	0.	-0.0003	.0003	.0004	-0.0000	-0.0000	-0.0000
3	20	-41.	30.	35.	0.	0.	0.	-0.0005	.0003	.0004	-0.0000	-0.0000	-0.0000
4	30	-72.	35.	45.	-0.	0.	0.	-0.0007	.0003	.0004	.0000	-0.0000	-0.0000
5	40	-50.	36.	33.	-0.	-0.	-0.	-0.0005	.0003	.0003	.0000	-0.0000	.0000
6	50	-5.	54.	16.	-0.	0.	-0.	-0.0000	.0003	.0001	.0000	-0.0000	.0000
7	57	313.	181.	-135.	-0.	-0.	-0.	.0006	.0003	-0.0003	.0000	-0.0000	.0000
8	70	44.	45.	-32.	0.	0.	0.	.0003	.0003	-0.0002	-0.0000	-0.0000	-0.0000
9	85	-7.	13.	-8.	0.	0.	0.	-0.0000	.0000	-0.0000	-0.0000	-0.0000	-0.0000
10	87	-176.	-243.	98.	-1905.	6694.	9194.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	-71.	611.	-112.	0.	0.	0.	-0.0005	.0039	-0.0007	.0000	-0.0000	-0.0000
20	175	-17.	87.	-22.	0.	-0.	-0.	-0.0005	.0023	-0.0006	.0000	.0000	.0001
21	190	-7.	-158.	21.	-0.	-0.	-0.	-0.0002	<u>-0.0057</u>	.0007	.0000	.0000	.0001
22	205	-1.	-78.	10.	0.	-0.	-0.	-0.0001	-0.0000	.0005	.0000	.0000	.0001
23	220	6.	36.	2.	0.	-0.	-0.	.0001	.0007	.0000	.0000	.0000	.0001
24	240	45.	-4.	2.	-0.	-0.	0.	.0009	-0.0001	.0000	.0000	-0.0000	.0001
25	255	-26.	10.	11.	0.	0.	0.	-0.0000	-0.0000	.0000	-0.0000	-0.0000	.0001

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK
MCCE 10 FREQUENCY 18.09

NET PT SEQ	FX (LB)	EY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS	KX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE

NINE MILE POWER STAT. MODEL 1 Y SHOCK

11, FREQUENCY 21.27

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 66

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE

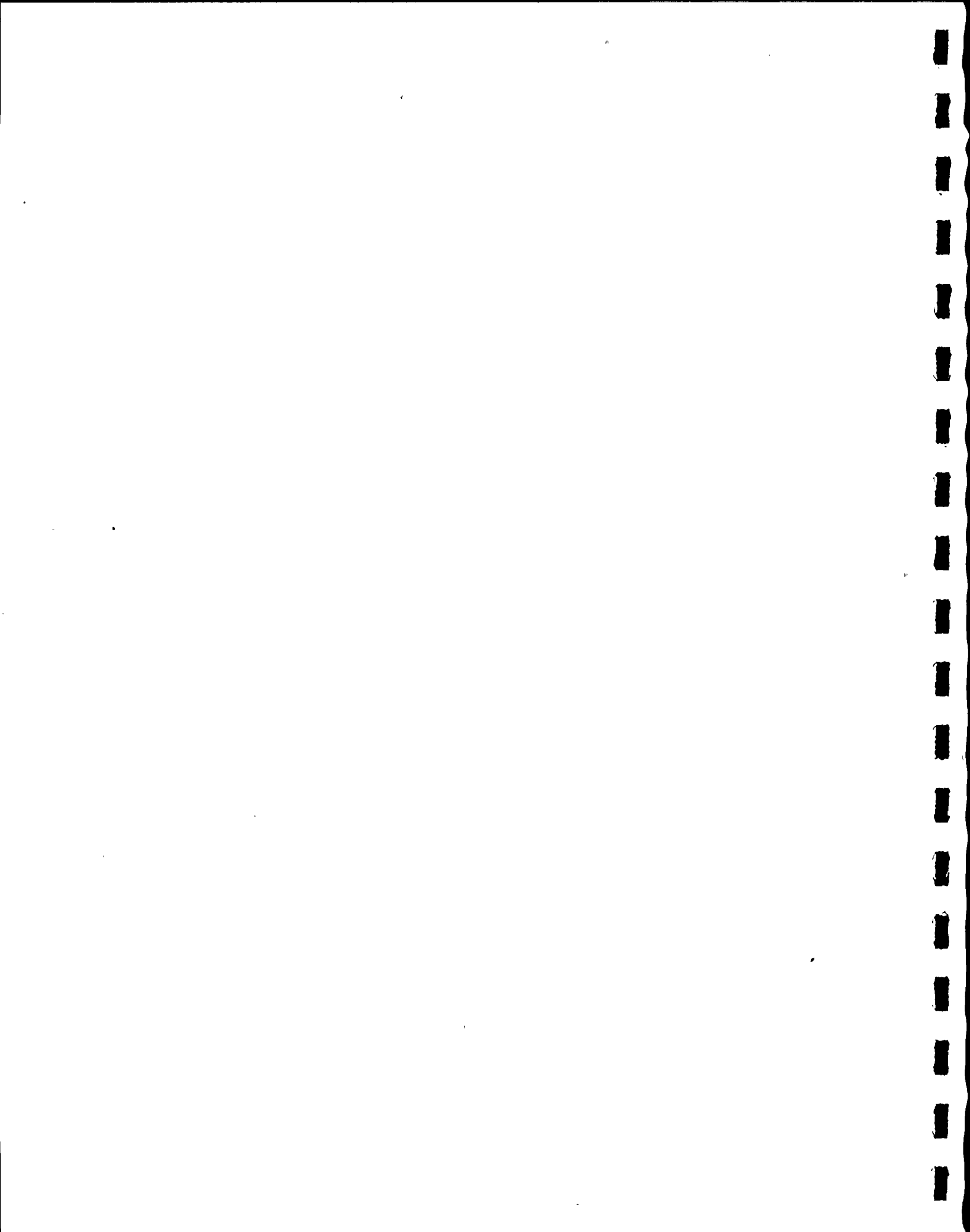
NINE MILE POWER STAT MODEL 1 Y SHOCK
12, FREQUENCY 23.56

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS



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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE

NINE MILE POWER STAT MODEL 1 Y SHOCK
13, FREQUENCY 27.61

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 68

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

LOADS
SHOCK

SC	HE	SEO	POS	MODE FX (LB)	14 FREQUENCY FY (LB)	FZ (LB)	28.66 HX (IN-LB)	MY (IN-LB)	KZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-17.	-57.	9.	1385.	-791.	-533.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	17.	57.	-9.	-1352.	780.	525.	.0000	.0000	-.0000	-.0000	.0000	.0000
1	2	15	END	17.	57.	-9.	777.	-43.	-768.	.0000	.0000	.0000	.0000	.0000	-.0000
2	1	15	BEG	-13.	-54.	10.	-777.	43.	768.	.0000	.0000	.0000	.0000	.0000	-.0000
2	1	20	END	13.	54.	-10.	561.	-43.	-1035.	.0000	.0000	.0000	.0000	.0000	-.0000
3	1	20	BEG	5.	-29.	13.	-458.	-21.	228.	.0000	.0000	.0000	.0000	.0000	-.0000
3	1	25	END	-5.	29.	-13.	-11.	21.	-46.	.0000	.0000	-.0000	.0000	.0000	-.0000
3	2	30	END	-5.	29.	-13.	-480.	21.	137.	.0000	.0000	-.0000	.0000	.0000	-.0000
4	1	30	BEG	5.	-23.	7.	480.	-21.	-137.	.0000	.0000	-.0000	.0000	.0000	-.0000
4	1	35	END	-5.	23.	-7.	-740.	21.	332.	-.0000	.0000	-.0000	.0000	.0000	-.0000
4	2	40	END	-5.	23.	-7.	-1000.	21.	526.	-.0000	.0000	-.0000	.0000	.0000	-.0000
5	1	40	BEG	2.	-17.	-2.	1000.	-21.	-526.	-.0000	.0000	-.0000	.0000	.0000	-.0000
5	1	45	END	-2.	17.	2.	-916.	21.	584.	-.0000	.0000	-.0000	-.0000	.0000	-.0000
5	2	50	END	-2.	17.	2.	-832.	21.	642.	-.0000	.0000	-.0000	-.0000	.0000	.0000
6	1	50	BEG	-6.	-7.	-14.	832.	-21.	-642.	-.0000	.0000	-.0000	-.0000	.0000	.0000
6	1	55	END	6.	7.	14.	8.	21.	291.	-.0000	.0000	-.0000	-.0000	.0000	.0000
6	2	57	END	6.	7.	14.	917.	21.	-89.	.0000	.0000	.0000	-.0000	.0000	.0000
7	1	57	BEG	-5.	25.	5.	-917.	-21.	89.	.0000	.0000	.0000	-.0000	.0000	.0000
7	1	60	END	5.	-25.	-5.	706.	21.	-274.	.0000	.0000	.0000	-.0000	.0000	.0000
7	2	65	END	5.	-25.	-5.	496.	21.	-459.	.0000	.0000	.0000	-.0000	.0000	.0000
7	3	70	END	5.	-25.	-5.	317.	21.	-616.	.0000	.0000	.0000	.0000	.0000	.0000
8	1	70	BEG	0.	33.	14.	-317.	-21.	616.	.0000	.0000	.0000	.0000	.0000	.0000
8	1	75	END	-0.	-33.	-14.	308.	21.	-615.	.0000	.0000	.0000	.0000	.0000	.0000
8	2	80	END	-0.	-33.	-14.	-162.	-611.	885.	-.0000	.0000	.0000	-.0000	.0000	-.0000

8 2 80 END -0. -33. -14. -162. -611. 885. -.0000 .0006 .0000 -.0000 .0000 -.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEG	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-0.	-33.	-14.	-159.	-619.	904.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	85	BEG	-2.	37.	18.	159.	619.	-904.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	86	END	2.	-37.	-18.	-44.	-1105.	1922.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	2	87	END	2.	-37.	-18.	900.	-1105.	2043.	.0000	.0000	-.0000	.0000	.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEG	POS	F1 (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-13.	-20.	-2.	-103.	63.	807.	.0000	.0000	.0000	.0000	.0000	-.0000
18	1	160	END	13.	20.	2.	103.	-138.	-194.	.0000	.0000	.0000	.0000	.0000	-.0000
18	2	165	END	13.	20.	2.	103.	-214.	419.	.0000	.0001	.0000	.0000	-.0000	-.0000
18	3	167	END	13.	20.	2.	103.	-312.	1221.	.0000	.0001	.0000	.0000	-.0000	-.0000
19	1	167	BEG	-5.	24.	3.	-103.	312.	-1221.	.0000	.0001	.0000	.0000	-.0000	-.0000
19	1	170	END	5.	-24.	-3.	103.	-194.	274.	.0000	.0001	-.0000	.0000	-.0000	.0000
19	2	175	END	5.	-24.	-3.	103.	-76.	-673.	.0000	.0000	-.0000	.0000	-.0000	.0000
20	1	175	BEG	-3.	26.	-1.	-103.	76.	673.	.0000	.0000	-.0000	.0000	-.0000	.0000
20	1	180	END	3.	-26.	1.	103.	-130.	-1702.	.0000	.0000	-.0001	.0000	-.0000	-.0000
20	2	185	END	3.	-26.	1.	103.	-155.	-2192.	.0000	.0001	-.0001	.0000	-.0000	-.0000
20	3	190	END	3.	-26.	1.	-436.	-243.	-2726.	-.0000	.0003	-.0002	-.0000	-.0000	-.0000
21	1	190	BEG	-3.	46.	-12.	436.	243.	2726.	-.0000	.0003	-.0002	-.0000	-.0000	-.0000
21	1	195	END	3.	-46.	12.	-453.	-244.	-2726.	-.0000	.0003	-.0002	-.0000	-.0000	-.0000
21	2	200	END	3.	-46.	12.	-469.	-245.	-2726.	-.0000	.0003	-.0002	-.0000	-.0000	-.0000
21	3	205	END	3.	-46.	12.	-1451.	-53.	-1756.	-.0000	-.0001	-.0001	-.0000	-.0000	-.0000
22	1	205	BEG	-5.	42.	-17.	1451.	53.	1756.	-.0000	-.0001	-.0001	-.0000	-.0000	-.0000
22	1	210	END	5.	-42.	17.	-1451.	124.	-1317.	-.0000	-.0004	-.0001	-.0000	-.0000	-.0000
22	2	215	END	5.	-42.	17.	-1451.	302.	-878.	-.0000	-.0007	-.0000	-.0000	-.0000	-.0000
22	3	220	END	5.	-42.	17.	-2329.	559.	0.	-.0001	-.0010	.0000	-.0000	.0000	-.0000
23	1	220	BEG	-10.	-63.	-15.	2329.	-559.	0.	-.0001	-.0010	.0000	-.0000	.0000	-.0000
23	1	225	END	10.	63.	15.	-1306.	400.	-0.	-.0000	-.0008	.0000	-.0000	.0000	-.0000
23	2	230	END	10.	63.	15.	1032.	38.	-0.	.0000	-.0001	.0000	-.0000	.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 71

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	OX (IN)	OY (IN)	OZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	10.	63.	15.	3369.	-324.	-0.	.0001	.0005	.0000	-.0000	.0000	-.0000
23	4	240	END	10.	63.	15.	5706.	-686.	-0.	.0001	.0009	.0000	-.0000	.0000	-.0000
24	1	240	BEG	6.	51.	-13.	-5706.	686.	0.	.0001	.0009	.0000	-.0000	.0000	-.0000
24	1	245	END	-6.	-51.	13.	3804.	-458.	0.	.0001	.0008	.0000	.0000	-.0000	-.0000
24	2	250	END	-6.	-51.	13.	1902.	-229.	0.	.0001	.0005	.0000	.0000	-.0000	-.0000
24	3	255	DIS	6.	0.	0.	0.	0.	0.	0.0000	-.0000	.0000	.0000	-.0000	-.0000
24	3	255	END	-6.	-51.	13.	0.	0.	0.	0.0000	-.0000	.0000	.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Y SHOCK

ADLPIPE STRESS ANALYSIS

NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	-17.	-57.	9.	1385.	-791.	-533.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	4.	4.	1.	0.	-0.	-0.	.0000	.0000	.0000	.0000	.0000	-.0000
3	20	5.	5.	1.	-0.	0.	0.	.0000	.0000	.0000	.0000	.0000	-.0000
4	30	0.	6.	-6.	-0.	-0.	0.	.0000	.0000	-.0000	.0000	.0000	-.0000
5	40	-4.	6.	-10.	-0.	0.	0.	-.0000	.0000	-.0000	.0000	.0000	-.0000
6	50	-7.	10.	-12.	0.	-0.	-0.	-.0000	.0000	-.0000	-.0000	.0000	.0000
7	57	1.	32.	19.	0.	0.	-0.	.0000	.0000	.0000	-.0000	.0000	.0000
8	70	5.	8.	9.	0.	-0.	-0.	.0000	.0000	.0000	.0000	.0000	.0000
9	85	-3.	4.	4.	-0.	-0.	0.	-.0000	.0000	.0000	-.0000	.0000	-.0000
10	87	2.	-37.	-18.	900.	-1105.	2043.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	8.	43.	5.	0.	0.	0.	.0000	.0001	.0000	.0000	-.0000	-.0000
20	175	2.	2.	-4.	-0.	0.	-0.	.0000	.0000	-.0000	.0000	-.0000	.0000
21	190	-0.	20.	-11.	0.	-0.	0.	-.0000	.0003	-.0002	-.0000	-.0000	-.0000
22	205	-2.	-4.	-5.	-0.	0.	0.	-.0000	-.0001	-.0001	-.0000	-.0000	-.0000
23	220	-5.	-104.	2.	-0.	0.	0.	-.0001	-.0010	.0000	-.0000	.0000	-.0000
24	240	16.	113.	3.	0.	-0.	-0.	.0001	.0009	.0000	-.0000	.0000	-.0000
25	255	-6.	-51.	13.	0.	0.	0.	0.0000	-.0000	.0000	.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK
MCCE 14 FREQUENCY 28.68

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	NETWORK POINT REACTIONS AND DEFLECTIONS			DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
				HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)						

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

ADLPIPE PAGE 74

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE 15, FREQUENCY 31.57
NINE MILE POWER STAT MODEL 1 Y SHOCK

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 16, FREQUENCY 32.32

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE 17, FREQUENCY 38.57
NINE MILE POWER STAT PCDEL 1 Y SHOCK

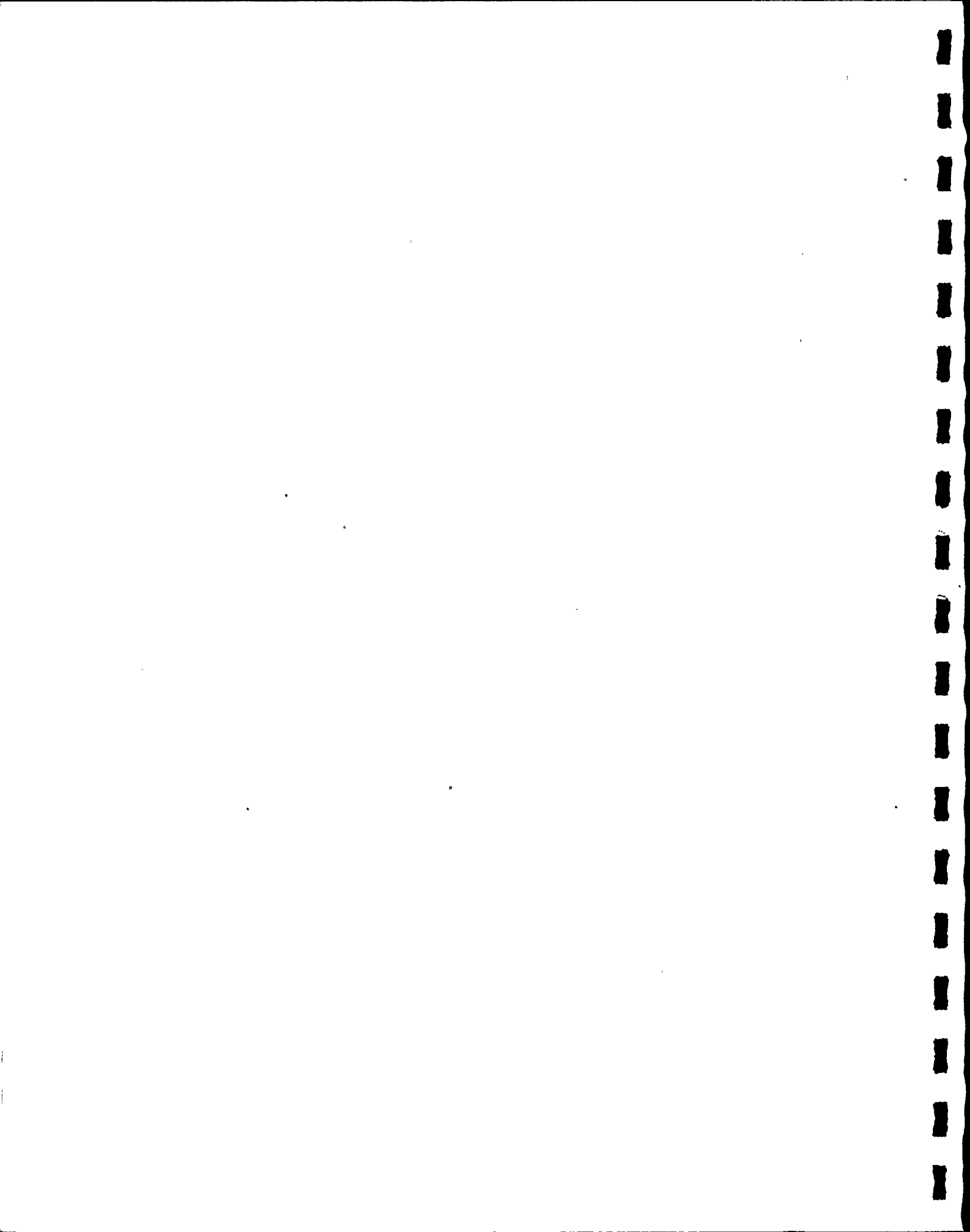
DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT PCDEL 1 Y SHOCK



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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE

NINE MILE POWER STAT MODEL 1 Y SHOCK

18, FREQUENCY 41.84

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 78

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 Y SHOCK

DYNAMIC PIPE STRESS ANALYSIS, MODE 19, FREQUENCY 47.39

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 79

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCKLOADS
SHOCK

SC	HE	SEQ	POS	PGDE FX (LB)	20 FY (LB)	FZ (LB)	48,93 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-22.	-22.	25.	82.	-636.	-758.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	22.	22.	-25.	-69.	620.	755.	.0000	.0000	-.0000	-.0000	.0000	.0000
1	2	15	END	22.	22.	-25.	-249.	-592.	-446.	.0000	.0000	-.0000	.0000	.0000	.0000
2	1	15	BEG	-12.	-21.	20.	249.	592.	446.	.0000	.0000	-.0000	.0000	.0000	.0000
2	1	20	END	12.	21.	-20.	-678.	-592.	-696.	.0000	.0000	-.0000	.0000	.0000	-.0000
3	1	20	BEG	5.	-22.	-1.	669.	148.	745.	.0000	.0000	-.0000	.0000	.0000	-.0000
3	1	25	END	-5.	22.	1.	-645.	-148.	-573.	.0000	.0000	-.0000	-.0000	.0000	-.0000
3	2	30	END	-5.	22.	1.	-622.	-148.	-401.	.0000	.0000	-.0000	-.0000	.0000	-.0000
4	1	30	BEG	13.	-21.	-10.	622.	148.	401.	.0000	.0000	-.0000	-.0000	.0000	-.0000
4	1	35	END	-13.	21.	10.	-258.	-148.	54.	.0000	.0000	-.0000	-.0000	.0000	-.0000
4	2	40	END	-13.	21.	10.	106.	-148.	508.	-.0000	.0000	.0000	-.0000	-.0000	-.0000
5	1	40	BEG	6.	-20.	-9.	-106.	148.	-508.	-.0000	.0000	.0000	-.0000	-.0000	-.0000
5	1	45	END	-6.	20.	9.	439.	-148.	729.	-.0000	.0000	.0000	-.0000	-.0000	-.0000
5	2	50	END	-6.	20.	9.	771.	-148.	949.	-.0000	.0000	.0000	-.0000	-.0000	.0000
6	1	50	BEG	-13.	-17.	5.	-771.	148.	-949.	-.0000	.0000	.0000	-.0000	-.0000	.0000
6	1	55	END	13.	17.	-5.	463.	-148.	162.	-.0000	.0000	.0000	.0000	-.0000	.0000
6	2	57	END	13.	17.	-5.	129.	-148.	-691.	.0000	.0000	-.0000	.0000	-.0000	.0000
7	1	57	BEG	4.	-6.	5.	-129.	148.	691.	.0000	.0000	-.0000	.0000	-.0000	.0000
7	1	60	END	-4.	6.	-5.	-51.	-148.	-513.	.0000	.0000	-.0000	.0000	-.0000	.0000
7	2	65	END	-4.	6.	-5.	-231.	-148.	-336.	.0000	.0000	-.0000	.0000	-.0000	-.0000
7	3	70	END	-4.	6.	-5.	-383.	-148.	-185.	.0000	.0000	-.0000	.0000	-.0000	-.0000
8	1	70	BEG	9.	-3.	-13.	383.	148.	185.	.0000	.0000	-.0000	.0000	-.0000	-.0000
8	1	75	END	-9.	3.	13.	-325.	-148.	-180.	.0000	.0000	-.0000	.0000	-.0000	-.0000
8	2	80	END	-9.	3.	13.	205.	397.	117.	.0000	-.0000	-.0000	.0000	-.0000	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK



ADLPIPE PAGE 80

ARTHUR D. LITTLE INC.
NINE MILE POWER STATADLPIPE STRESS ANALYSIS
MODEL 1 Y SHOCK

SC	HE	SEQ	POS	F1 (LB)	F2 (LB)	F3 (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-9.	3.	13.	205.	404.	116.	.0000	-.0000	-.0000	.0000	-.0000	.0000
9	1	85	BEG	11.	-4.	-26.	-205.	-404.	-116.	.0000	-.0000	-.0000	.0000	-.0000	.0000
9	1	86	END	-11.	4.	26.	192.	1079.	1.	.0000	-.0000	-.0000	.0000	-.0000	.0000
9	2	87	END	-11.	4.	26.	-1164.	1079.	-546.	-.0000	-.0000	-.0000	-.0000	-.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 81

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

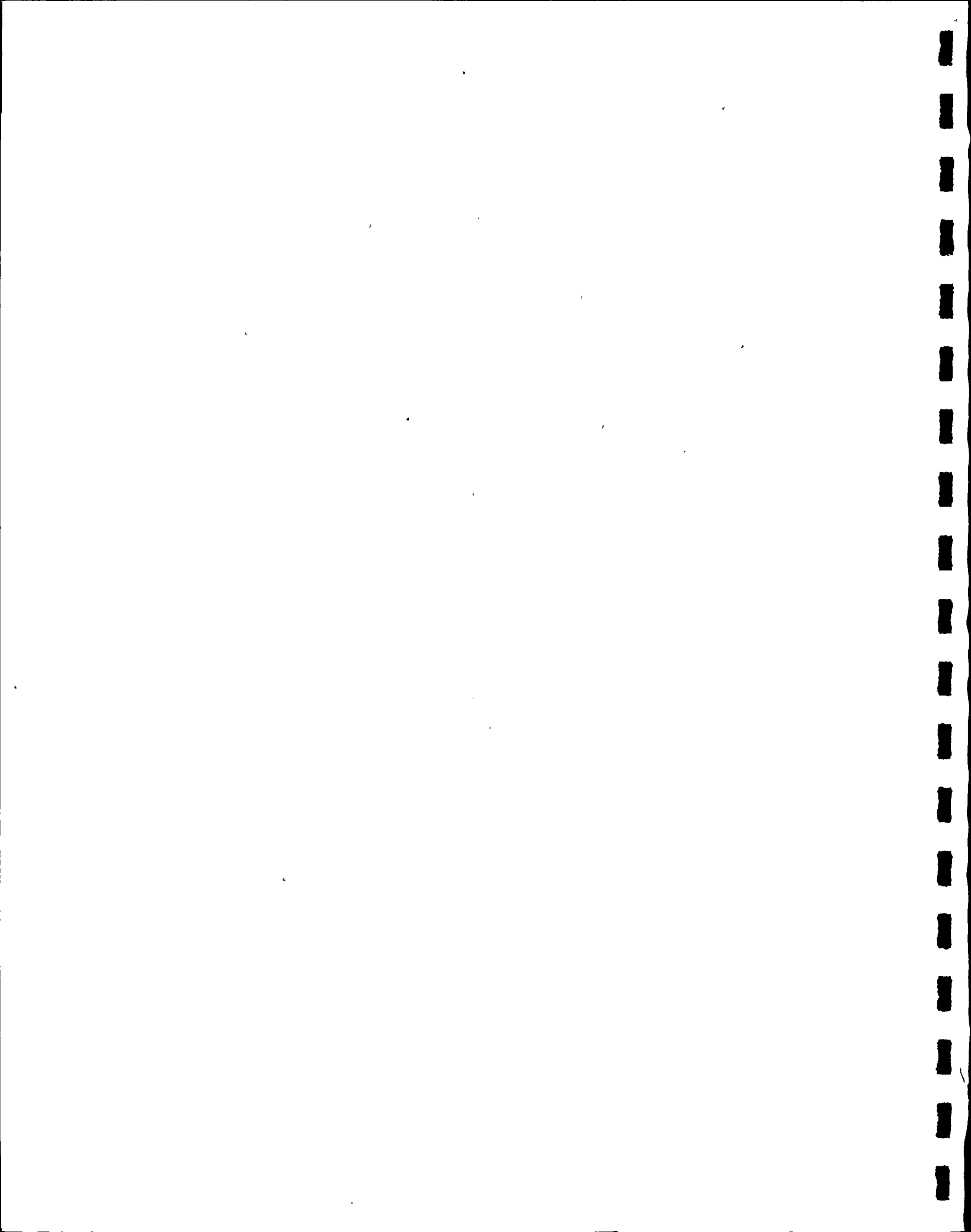
ADLPIPE STRESS ANALYSIS

SC	NE	SEG	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-3.	1.	13.	8.	445.	-49.	.0000	.0000	-.0000	.0000	.0000	-.0000
18	1	160	END	3.	-1.	-13.	-8.	-58.	20.	.0000	.0000	-.0000	.0000	-.0000	.0000
18	2	165	END	3.	-1.	-13.	-8.	328.	-8.	.0000	-.0000	-.0000	.0000	-.0000	.0000
18	3	167	END	3.	-1.	-13.	-8.	834.	-46.	.0000	-.0000	-.0000	.0000	.0000	.0000
19	1	167	BEG	21.	-1.	-18.	8.	-834.	46.	.0000	-.0000	-.0000	.0000	.0000	.0000
19	1	170	END	-21.	1.	18.	-8.	130.	-14.	.0000	-.0000	.0000	.0000	.0000	-.0000
19	2	175	END	-21.	1.	18.	-8.	-574.	18.	.0000	.0000	.0001	.0000	.0000	-.0000
20	1	175	BEG	27.	-0.	3.	8.	574.	-18.	.0000	.0000	.0001	.0000	.0000	-.0000
20	1	180	END	-27.	0.	-3.	-8.	-473.	24.	.0000	.0000	.0001	-.0000	-.0000	-.0000
20	2	185	END	-27.	0.	-3.	-8.	-426.	27.	.0000	.0000	.0001	-.0000	-.0000	.0000
20	3	190	END	-27.	0.	-3.	-2.	184.	-10.	-.0000	.0000	.0000	-.0000	-.0000	.0000
21	1	190	BEG	21.	0.	11.	2.	-184.	10.	-.0000	.0000	.0000	-.0000	-.0000	.0000
21	1	195	END	-21.	-0.	-11.	-1.	191.	-10.	-.0000	.0000	.0000	-.0000	-.0000	.0000
21	2	200	END	-21.	-0.	-11.	-1.	199.	-11.	-.0000	.0000	.0000	-.0000	-.0000	.0000
21	3	205	END	-21.	-0.	-11.	7.	408.	-34.	-.0001	.0000	.0000	-.0000	.0000	-.0000
22	1	205	BEG	12.	1.	17.	-7.	-408.	34.	-.0001	.0000	.0000	-.0000	.0000	-.0000
22	1	210	END	-12.	-1.	-17.	7.	229.	-26.	-.0001	.0000	.0000	-.0000	.0000	-.0000
22	2	215	END	-12.	-1.	-17.	7.	50.	-17.	-.0001	.0000	.0000	-.0000	.0000	-.0000
22	3	220	END	-12.	-1.	-17.	-10.	-51.	-0.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000
23	1	220	BEG	-0.	-0.	16.	10.	51.	0.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000
23	1	225	END	0.	0.	-16.	-7.	-53.	-0.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000
23	2	230	END	0.	0.	-16.	-1.	-59.	-0.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS



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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

SC	HE	SEO	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	0.	0.	-16.	5.	-65.	-0.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000
23	4	240	END	0.	0.	-16.	11.	-70.	-0.	.0000	.0000	-.0000	-.0000	.0000	-.0000
24	1	240	BEG	1.	0.	14.	-11.	70.	0.	.0000	.0000	-.0000	-.0000	.0000	-.0000
24	1	245	END	-1.	-0.	-14.	7.	-47.	0.	.0000	.0000	-.0000	.0000	.0000	-.0000
24	2	250	END	-1.	-0.	-14.	4.	-23.	0.	.0000	.0000	-.0000	.0000	-.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0000	.0000	-.0000	-.0000
24	3	255	END	-1.	-0.	-14.	-0.	-0.	0.	-.0000	-.0000	-.0000	.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NET PT SEC		NETWORK POINT REACTIONS AND DEFLECTIONS												
		FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)	
1	5	-22.	-22.	25.	82.	-636.	-758.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	15	10.	0.	-5.	-0.	-0.	-0.	.0000	.0000	-.0000	.0000	.0000	.0000	
3	20	14.	0.	-9.	-0.	0.	0.	.0000	.0000	-.0000	.0000	.0000	-.0000	
4	30	6.	1.	-10.	0.	-0.	0.	.0000	.0000	-.0000	-.0000	.0000	-.0000	
5	40	-7.	1.	1.	0.	0.	0.	-.0000	.0000	.0000	-.0000	-.0000	-.0000	
6	50	-19.	3.	14.	0.	-0.	-0.	-.0000	.0000	.0000	-.0000	-.0000	.0000	
7	57	16.	11.	-1.	-0.	-0.	-0.	.0000	.0000	-.0000	.0000	-.0000	.0000	
8	70	5.	3.	-18.	-0.	0.	0.	.0000	.0000	-.0000	.0000	-.0000	-.0000	
9	85	1.	-2.	-13.	0.	0.	-0.	.0000	-.0000	-.0000	.0000	-.0000	.0000	
10	67	-11.	4.	26.	-1164.	1079.	-546.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
19	167	24.	-2.	-30.	0.	-0.	-0.	.0000	-.0000	-.0000	.0000	.0000	.0000	
20	175	5.	1.	20.	-0.	-0.	0.	.0000	.0000	.0001	.0000	.0000	-.0000	
21	190	-6.	1.	8.	0.	0.	-0.	-.0000	.0000	.0000	-.0000	-.0000	.0000	
22	205	-8.	0.	6.	-0.	0.	0.	-.0001	.0000	.0000	-.0000	.0000	-.0000	
23	220	-12.	-1.	-1.	0.	-0.	-0.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000	
24	240	1.	0.	-2.	0.	-0.	-0.	.0000	.0000	-.0000	-.0000	.0000	-.0000	
25	255	-1.	-0.	-14.	-0.	-0.	0.	-.0000	-.0000	-.0000	.0000	-.0000	-.0000	

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK
MODE 20 FREQUENCY 48.93

NET PT SEG	NETWORK POINT REACTIONS AND DEFLECTIONS									RX (RAD)	RY (RAD)	RZ (RAD)
	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	OX (IN)	OY (IN)	OZ (IN)			

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

MEDIAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5 BEG												
		SG,RT,SUM OF SG	587.	776.	460.	34901.	29993.	93276.	0.000	0.000	0.000	0.0000	0.0000	0.0000
1	1	10 END												
		SG,RT,SUM OF SG	567.	776.	460.	34582.	29732.	93809.	.000	.000	.000	.0000	.0000	.0000
1	2	10 BEG												
		SG,RT,SUM OF SG	587.	776.	460.	34582.	29732.	93809.	.000	.000	.000	.0000	.0000	.0000
1	2	15 END												
		SG,RT,SUM OF SG	587.	776.	460.	11377.	15802.	100858.	.003	.001	.001	.0000	.0000	.0001
2	1	15 BEG												
		SG,RT,SUM OF SG	570.	756.	447.	11377.	15602.	100858.	.003	.001	.001	.0000	.0000	.0001
2	1	20 END												
		SG,RT,SUM OF SG	570.	756.	447.	11688.	15602.	105236.	.005	.001	.002	.0000	.0000	.0001
3	1	20 BEG												
		SG,RT,SUM OF SG	469.	1250.	367.	11532.	7751.	180494.	.005	.001	.002	.0000	.0000	.0001
3	1	25 END												
		SG,RT,SUM OF SG	469.	1250.	367.	19269.	7751.	170635.	.009	.001	.003	.0000	.0000	.0001
3	2	25 BEG												
		SG,RT,SUM OF SG	469.	1250.	367.	19269.	7751.	170635.	.009	.001	.003	.0000	.0000	.0001
3	2	30 END												
		SG,RT,SUM OF SG	469.	1250.	367.	30831.	7751.	161904.	.012	.001	.005	.0000	.0000	.0001
4	1	30 BEG												
		SG,RT,SUM OF SG	457.	1246.	285.	30831.	7751.	161904.	.012	.001	.005	.0000	.0000	.0001
4	1	35 END												
		SG,RT,SUM OF SG	457.	1246.	285.	40019.	7751.	151831.	.014	.001	.006	.0000	.0000	.0000
4	2	35 BEG												
		SG,RT,SUM OF SG	457.	1246.	285.	40019.	7751.	151831.	.014	.001	.006	.0000	.0000	.0000
4	2	40 END												
		SG,RT,SUM OF SG	457.	1246.	285.	49585.	7751.	142904.	.015	.001	.006	.0000	.0000	.0000
5	1	40 BEG												
		SG,RT,SUM OF SG	464.	1244.	178.	49585.	7751.	142904.	.015	.001	.006	.0000	.0000	.0000
5	1	45 END												
		SG,RT,SUM OF SG	464.	1244.	178.	55014.	7751.	131649.	.016	.001	.007	.0000	.0000	.0000
5	2	45 BEG												
		SG,RT,SUM OF SG	464.	1244.	178.	55014.	7751.	131649.	.016	.001	.007	.0000	.0000	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 Y SHOCK

MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
5	2	50 END												
SQ,RT,SUM OF SQ	464.	1244.	178.	60618.	7751.	121604.	.016	.001	.007	.0000	.0000	.0000		
6	1	50 BEG												
SQ,RT,SUM OF SQ	517.	1242.	97.	60618.	7751.	121604.	.016	.001	.007	.0000	.0000	.0000		
6	1	55 END												
SQ,RT,SUM OF SQ	517.	1242.	97.	58140.	7751.	97063.	.013	.001	.007	.0000	.0000	.0000		
6	2	55 BEG												
SQ,RT,SUM OF SQ	517.	1242.	97.	58140.	7751.	97063.	.013	.001	.007	.0000	.0000	.0000		
6	2	57 END												
SQ,RT,SUM OF SQ	517.	1242.	97.	56021.	7751.	76043.	.010	.001	.006	.0000	.0000	.0001		
7	1	57 BEG												
SQ,RT,SUM OF SQ	651.	1257.	584.	56021.	7751.	76043.	.010	.001	.006	.0000	.0000	.0001		
7	1	60 END												
SQ,RT,SUM OF SQ	651.	1257.	584.	32994.	7751.	44548.	.007	.001	.005	.0000	.0000	.0001		
7	2	60 BEG												
SQ,RT,SUM OF SQ	651.	1257.	584.	32994.	7751.	44548.	.007	.001	.005	.0000	.0000	.0001		
7	2	65 END												
SQ,RT,SUM OF SQ	851.	1257.	584.	10476.	7751.	21455.	.005	.001	.003	.0000	.0000	.0001		
7	3	65 BEG												
SQ,RT,SUM OF SQ	851.	1257.	584.	10476.	7751.	21455.	.005	.001	.003	.0000	.0000	.0001		
7	3	70 END												
SQ,RT,SUM OF SQ	851.	1257.	584.	10922.	7751.	30845.	.002	.001	.002	.0000	.0000	.0001		
8	1	70 BEG												
SQ,RT,SUM OF SQ	887.	1265.	638.	10922.	7751.	30845.	.002	.001	.002	.0000	.0000	.0001		
8	1	75 END												
SQ,RT,SUM OF SQ	887.	1265.	638.	11269.	7751.	31226.	.002	.001	.002	.0000	.0000	.0001		
8	2	75 BEG												
SQ,RT,SUM OF SQ	887.	1265.	638.	11269.	7751.	31226.	.002	.001	.002	.0000	.0000	.0001		
8	2	80 END												
SQ,RT,SUM OF SQ	887.	1265.	638.	38674.	27451.	34694.	.000	.000	.000	.0000	.0000	.0000		
8	3	80 BEG												
SQ,RT,SUM OF SQ	887.	1265.	638.	38674.	27451.	34694.	.000	.000	.000	.0000	.0000	.0000		
8	3	85 END												
SQ,RT,SUM OF SQ	887.	1265.	638.	38674.	27853.	34711.	.000	.000	.000	.0000	.0000	.0000		

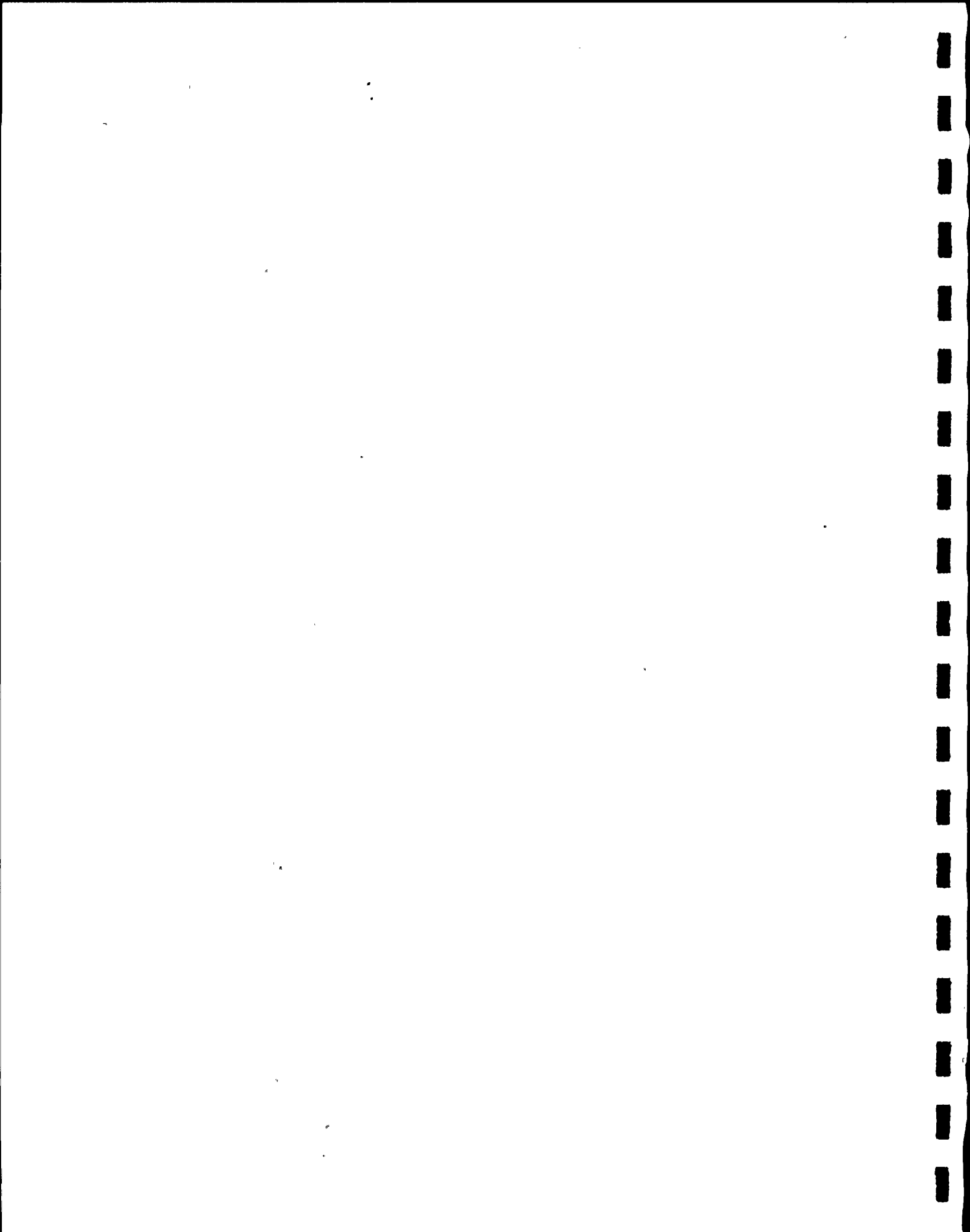
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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

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 ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Y SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
9	1	85	BEG											
9	1	86	END											
9	2	86	BEG											
9	2	87	END											
10	1	87	BEG											
10	1	88	END											
10	2	88	BEG											
10	2	90	END											
11	1	90	BEG											
11	1	95	END											
11	2	95	BEG											
11	2	100	END											
12	1	100	BEG											
12	1	105	END											
12	2	105	BEG											
12	2	107	END											
13	1	107	BEG											
9	1	85	BEG	887.	1270.	647.	38674.	27853.	34711.	.000	.000	.000	.0000	.0000
9	1	86	END	887.	1270.	647.	38835.	46689.	49864.	.000	.000	.000	.0000	.0000
9	2	86	BEG	887.	1270.	647.	38835.	46689.	49864.	.000	.000	.000	.0000	.0000
9	2	87	END	887.	1270.	647.	9912.	46689.	65310.	.000	.000	.000	.0000	.0000
10	1	87	BEG	355.	107.	511.	22793.	43495.	9452.	0.000	0.000	0.000	0.0000	0.0000
10	1	88	END	355.	107.	511.	23401.	29429.	12822.	.000	.000	.000	.0000	.0000
10	2	88	BEG	355.	107.	511.	23401.	29429.	12822.	.000	.000	.000	.0000	.0000
10	2	90	END	355.	107.	511.	20306.	16498.	13380.	.000	.000	.000	.0000	.0000
11	1	90	BEG	346.	101.	504.	20306.	16498.	13380.	.000	.000	.000	.0000	.0000
11	1	95	END	346.	101.	504.	20247.	16244.	13390.	.000	.000	.000	.0000	.0000
11	2	95	BEG	346.	101.	504.	20247.	16244.	13390.	.000	.000	.000	.0000	.0000
11	2	100	END	346.	101.	504.	6892.	3088.	1361.	.001	.001	.001	.0000	.0000
12	1	100	BEG	253.	39.	400.	6892.	3088.	1361.	.001	.001	.001	.0000	.0000
12	1	105	END	253.	39.	400.	12885.	3088.	5156.	.001	.001	.001	.0000	.0000
12	2	105	BEG	253.	39.	400.	12885.	3088.	5156.	.001	.001	.001	.0000	.0000
12	2	107	END	253.	39.	400.	34858.	3088.	19082.	.001	.001	.002	.0000	.0000
13	1	107	BEG	46.	45.	78.	34858.	3088.	19082.	.001	.001	.002	.0000	.0000



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Y SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
13	1	110 END												
		SQ,RT,SUM OF SQ	46.	45.	78.	37621.	3088.	20716.	.002	.001	.003	.0000	.0000	.0000
13	2	110 BEG												
		SQ,RT,SUM OF SQ	46.	45.	78.	37621.	3088.	20716.	.002	.001	.003	.0000	.0000	.0000
13	2	115 END												
		SQ,RT,SUM OF SQ	46.	45.	78.	40383.	3088.	22351.	.002	.001	.003	.0000	.0000	.0000
14	1	115 BEG												
		SQ,RT,SUM OF SQ	54.	79.	95.	40383.	3088.	22351.	.002	.001	.003	.0000	.0000	.0000
14	1	120 END												
		SQ,RT,SUM OF SQ	54.	79.	95.	37020.	3088.	20423.	.002	.001	.003	.0000	.0000	.0000
14	2	120 BEG												
		SQ,RT,SUM OF SQ	54.	79.	95.	37020.	3088.	20423.	.002	.001	.003	.0000	.0000	.0000
14	2	125 END												
		SQ,RT,SUM OF SQ	54.	79.	95.	33656.	3088.	18494.	.001	.001	.003	.0000	.0000	.0000
15	1	125 BEG												
		SQ,RT,SUM OF SQ	155.	119.	281.	33656.	3088.	18494.	.001	.001	.003	.0000	.0000	.0000
15	1	130 END												
		SQ,RT,SUM OF SQ	155.	119.	281.	20159.	3088.	11056.	.001	.001	.002	.0000	.0000	.0000
15	2	130 BEG												
		SQ,RT,SUM OF SQ	155.	119.	281.	20159.	3088.	11056.	.001	.001	.002	.0000	.0000	.0000
15	2	135 END												
		SQ,RT,SUM OF SQ	155.	119.	281.	6663.	3088.	3619.	.000	.001	.001	.0000	.0000	.0000
16	1	135 BEG												
		SQ,RT,SUM OF SQ	188.	160.	366.	6663.	3088.	3619.	.000	.001	.001	.0000	.0000	.0000
16	1	140 END												
		SQ,RT,SUM OF SQ	188.	160.	366.	1963.	3088.	1201.	.000	.001	.001	.0000	.0000	.0000
16	2	140 BEG												
		SQ,RT,SUM OF SQ	188.	160.	366.	1963.	3088.	1201.	.000	.001	.001	.0000	.0000	.0000
16	2	145 END												
		SQ,RT,SUM OF SQ	188.	160.	366.	17222.	9412.	11428.	.000	.000	.000	.0000	.0000	.0000
16	3	145 BEG												
		SQ,RT,SUM OF SQ	188.	160.	366.	17222.	9412.	11428.	.000	.000	.000	.0000	.0000	.0000
16	3	150 END												
		SQ,RT,SUM OF SQ	188.	160.	366.	17339.	9528.	11539.	.000	.000	.000	.0000	.0000	.0000

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 Y SHOCK

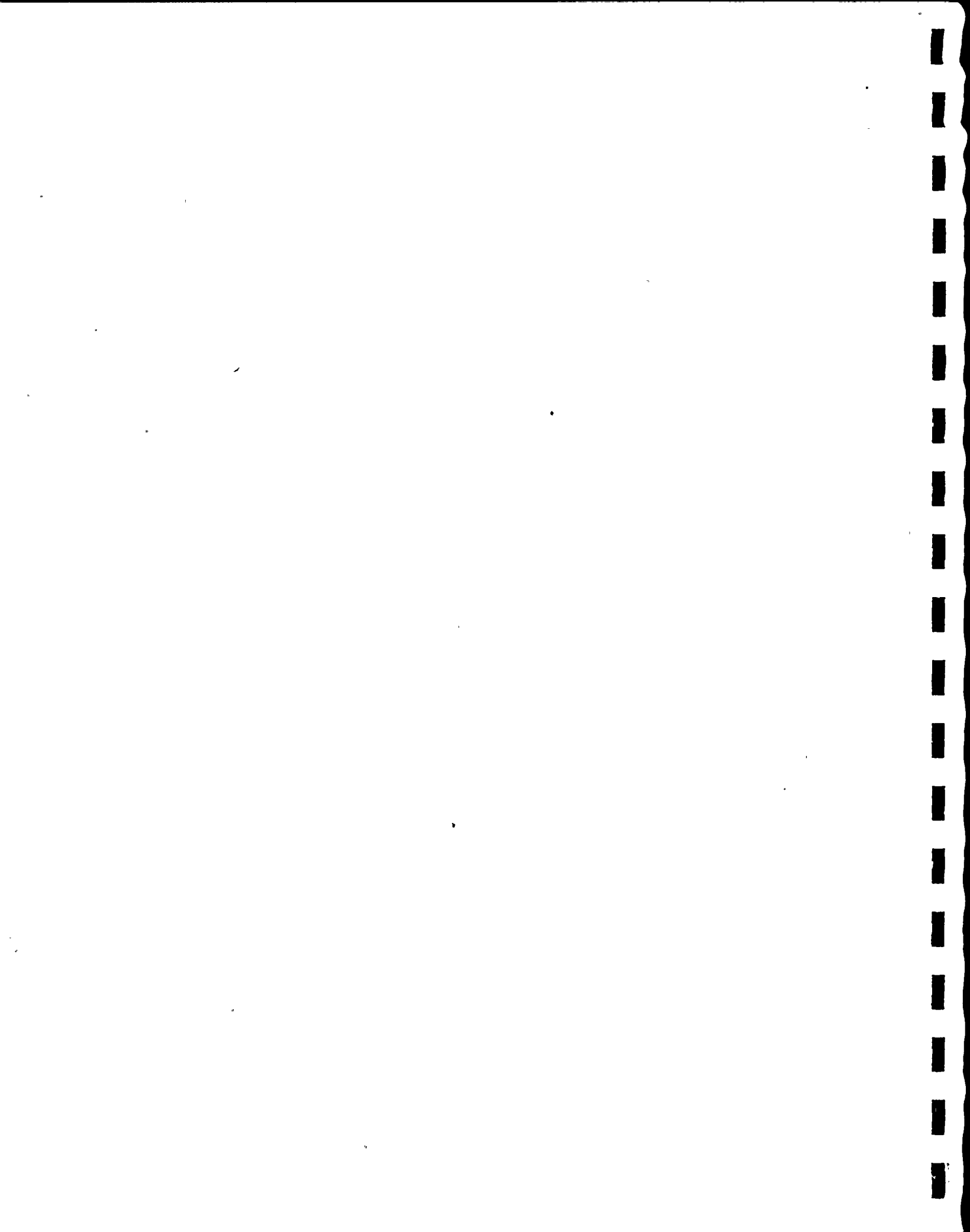
MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
17	1	150	BEG											
			SQ,RT,SUM OF SQ	188.	164.	369.	17339.	9528.	11539.	.000	.000	.000	.0000	.0000
17	1	155	END											
			SQ,RT,SUM OF SQ	188.	164.	369.	23886.	16066.	17775.	.000	.000	.000	.0000	.0000
18	1	20	BEG											
			SQ,RT,SUM OF SQ	155.	1611.	212.	7412.	14496.	285367.	.005	.001	.002	.0000	.0000
18	1	160	END											
			SQ,RT,SUM OF SQ	155.	1611.	212.	7412.	10147.	237129.	.005	.011	.003	.0000	.0000
18	2	160	BEG											
			SQ,RT,SUM OF SQ	155.	1611.	212.	7412.	10147.	237129.	.005	.011	.003	.0000	.0000
18	2	165	END											
			SQ,RT,SUM OF SQ	155.	1611.	212.	7412.	9044.	189685.	.005	.033	.003	.0001	.0000
18	3	165	BEG											
			SQ,RT,SUM OF SQ	155.	1611.	212.	7412.	9044.	189685.	.005	.033	.003	.0001	.0000
18	3	167	END											
			SQ,RT,SUM OF SQ	155.	1611.	212.	7412.	13565.	130248.	.005	.072	.003	.0001	.0000
19	1	167	BEG											
			SQ,RT,SUM OF SQ	94.	1064.	86.	7412.	13565.	130248.	.005	.072	.003	.0001	.0000
19	1	170	END											
			SQ,RT,SUM OF SQ	94.	1064.	86.	7412.	10437.	87835.	.005	.118	.003	.0001	.0000
19	2	170	BEG											
			SQ,RT,SUM OF SQ	94.	1064.	86.	7412.	10437.	87835.	.005	.118	.003	.0001	.0000
19	2	175	END											
			SQ,RT,SUM OF SQ	94.	1064.	86.	7412.	7582.	45936.	.005	.170	.002	.0001	.0000
20	1	175	BEG											
			SQ,RT,SUM OF SQ	91.	810.	129.	7412.	7562.	45936.	.005	.170	.002	.0001	.0000
20	1	180	END											
			SQ,RT,SUM OF SQ	91.	810.	129.	7412.	3406.	14423.	.005	.227	.001	.0001	.0000
20	2	180	BEG											
			SQ,RT,SUM OF SQ	91.	810.	129.	7412.	3406.	14423.	.005	.227	.001	.0001	.0000
20	2	185	END											
			SQ,RT,SUM OF SQ	91.	810.	129.	7412.	2901.	6592.	.005	.255	.002	.0001	.0000
20	3	185	BEG											
			SQ,RT,SUM OF SQ	91.	810.	129.	7412.	2901.	6592.	.005	.255	.002	.0001	.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK
MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
20	3	190 END												
		SQ,RT,SUM OF SQ	91.	810.	129.	23376.	4148.	20364.	.003	.281	.002	.0002	.0000	.0014
21	1	190 BEG												
		SQ,RT,SUM OF SQ	77.	459.	120.	23376.	4148.	20364.	.003	.281	.002	.0002	.0000	.0014
21	1	195 END												
		SQ,RT,SUM OF SQ	77.	459.	120.	23534.	4153.	20364.	.003	.281	.002	.0002	.0000	.0014
21	2	195 BEG												
		SQ,RT,SUM OF SQ	77.	459.	120.	23534.	4153.	20364.	.003	.281	.002	.0002	.0000	.0014
21	2	200 END												
		SQ,RT,SUM OF SQ	77.	459.	120.	23695.	4158.	20364.	.003	.281	.002	.0002	.0000	.0014
21	3	200 BEG												
		SQ,RT,SUM OF SQ	77.	459.	120.	23695.	4158.	20364.	.003	.281	.002	.0002	.0000	.0014
21	3	205 END												
		SQ,RT,SUM OF SQ	77.	459.	120.	33217.	2350.	10889.	.003	.247	.002	.0003	.0000	.0013
22	1	205 BEG												
		SQ,RT,SUM OF SQ	61.	259.	117.	33217.	2350.	10889.	.003	.247	.002	.0003	.0000	.0013
22	1	210 END												
		SQ,RT,SUM OF SQ	61.	259.	117.	33217.	1417.	8167.	.003	.233	.002	.0004	.0000	.0013
22	2	210 BEG												
		SQ,RT,SUM OF SQ	61.	259.	117.	33217.	1417.	8167.	.003	.233	.002	.0004	.0000	.0013
22	2	215 END												
		SQ,RT,SUM OF SQ	61.	259.	117.	33217.	1237.	5445.	.003	.220	.002	.0004	.0000	.0013
22	3	215 BEG												
		SQ,RT,SUM OF SQ	61.	259.	117.	33217.	1237.	5445.	.003	.220	.002	.0004	.0000	.0013
22	3	220 END												
		SQ,RT,SUM OF SQ	61.	259.	117.	38481.	3413.	0.	.003	.182	.003	.0006	.0000	.0014
23	1	220 BEG												
		SQ,RT,SUM OF SQ	29.	87.	104.	38481.	3413.	0.	.003	.182	.003	.0006	.0000	.0014
23	1	225 END												
		SQ,RT,SUM OF SQ	29.	87.	104.	37464.	3466.	0.	.003	.173	.003	.0006	.0000	.0014
23	2	225 BEG												
		SQ,RT,SUM OF SQ	29.	87.	104.	37464.	3466.	0.	.003	.173	.003	.0006	.0000	.0014
23	2	230 END												
		SQ,RT,SUM OF SQ	29.	87.	104.	35247.	3813.	0.	.003	.149	.003	.0007	.0000	.0014



23 2 230 END
 SQ,RT,SUM OF SQ 29 87 104 35247 3813 0 .003 .149 .003 .0007 .0000 .0014

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Y SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

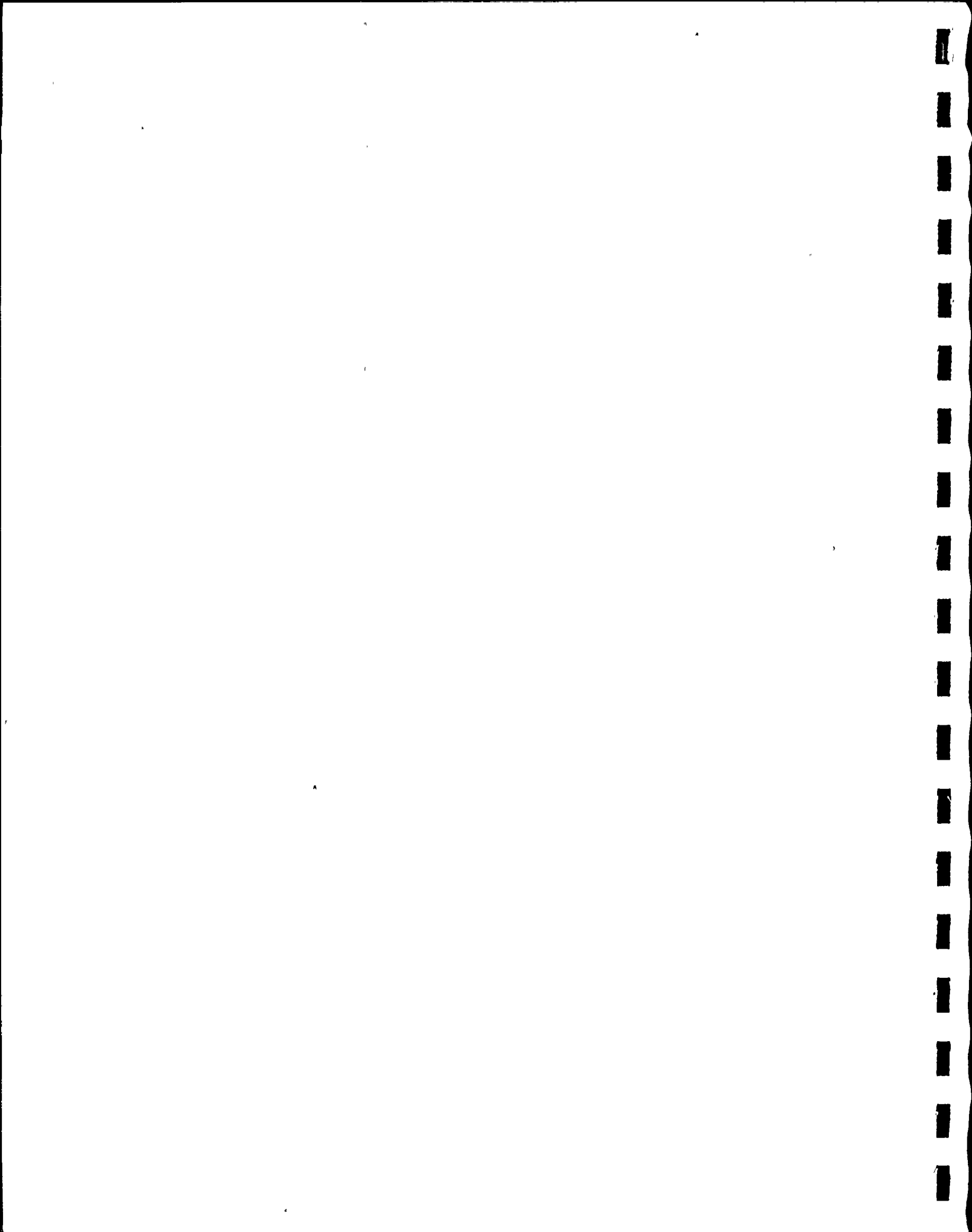
SEC MEM POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23 3 230 BEG SQ,RT,SUM OF SQ	29.	87.	104.	35247.	3813.	0.	.003	.149	.003	.0007	.0000	.0014
23 3 235 END SQ,RT,SUM OF SQ	29.	87.	104.	33202.	4409.	0.	.003	.124	.003	.0007	.0000	.0014
23 4 235 BEG SQ,RT,SUM OF SQ	29.	87.	104.	33202.	4409.	0.	.003	.124	.003	.0007	.0000	.0014
23 4 240 END SQ,RT,SUM OF SQ	29.	87.	104.	31364.	5167.	0.	.003	.095	.003	.0008	.0000	.0014
24 1 240 BEG SQ,RT,SUM OF SQ	46.	280.	86.	31364.	5167.	0.	.003	.095	.003	.0008	.0000	.0014
24 1 245 END SQ,RT,SUM OF SQ	46.	280.	86.	20909.	3444.	0.	.002	.065	.003	.0008	.0000	.0014
24 2 245 BEG SQ,RT,SUM OF SQ	46.	280.	86.	20909.	3444.	0.	.002	.065	.003	.0008	.0000	.0014
24 2 250 END SQ,RT,SUM OF SQ	46.	280.	86.	10455.	1722.	0.	.001	.033	.003	.0009	.0000	.0014
24 3 250 BEG SQ,RT,SUM OF SQ	46.	280.	86.	10455.	1722.	0.	.001	.033	.003	.0009	.0000	.0014
24 3 255 DIS SQ,RT,SUM OF SQ	0.	0.	0.	0.	0.	0.	.000	.000	.003	.0009	.0000	.0014
24 3 255 END SQ,RT,SUM OF SQ	46.	280.	86.	0.	0.	0.	.000	.000	.003	.0009	.0000	.0014

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Y SHOCK

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Y SHOCK
 RMS MODAL SUMMARY
 NETWORK POINT REACTIONS AND DEFLECTIONS

NET	PT	SEG	F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5		587.	776.	480.	34901.	29993.	93776.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		31.	25.	29.	0.	0.	0.	.0029	.0010	.0012	.0000	.0000	.0001
3	20		59.	34.	49.	0.	0.	0.	.0054	.0010	.0020	.0000	.0000	.0001
4	30		120.	40.	97.	0.	0.	0.	.0122	.0010	.0046	.0000	.0000	.0001
5	40		139.	40.	125.	0.	0.	0.	.0155	.0010	.0065	.0000	.0000	.0000
6	50		213.	61.	206.	0.	0.	0.	.0156	.0010	.0072	.0000	.0000	.0000
7	57		609.	205.	558.	0.	0.	0.	.0100	.0011	.0057	.0000	.0000	.0001
8	70		58.	51.	63.	0.	0.	0.	.0022	.0011	.0021	.0000	.0000	.0001
9	85		8.	15.	17.	0.	0.	0.	.0001	.0001	.0001	.0000	.0000	.0000
10	87		956.	1275.	824.	24855.	63810.	65990.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		9.	6.	7.	0.	0.	0.	.0000	.0000	.0000	.0000	.0000	.0000
12	100		93.	62.	104.	0.	0.	0.	.0008	.0006	.0009	.0000	.0000	.0000
13	107		207.	84.	322.	0.	0.	0.	.0014	.0006	.0022	.0000	.0000	.0000
14	115		100.	34.	173.	0.	0.	0.	.0016	.0006	.0028	.0000	.0000	.0000
15	125		101.	40.	186.	0.	0.	0.	.0014	.0006	.0026	.0000	.0000	.0000
16	135		33.	40.	85.	0.	0.	0.	.0005	.0006	.0012	.0000	.0000	.0000
17	150		1.	4.	3.	0.	0.	0.	.0000	.0001	.0001	.0000	.0000	.0000
18	155		188.	164.	369.	23686.	16066.	17775.	.0000	.0000	.0000	.0000	.0000	.0000
19	167		102.	775.	267.	0.	0.	0.	.0054	.0721	.0035	.0001	.0000	.0010
20	175		25.	288.	60.	0.	0.	0.	.0054	.1705	.0024	.0001	.0000	.0014
21	190		18.	367.	29.	0.	0.	0.	.0033	.2810	.0023	.0002	.0000	.0014
22	205		18.	217.	14.	0.	0.	0.	.0025	.2472	.0024	.0003	.0000	.0013
23	220		40.	330.	13.	0.	0.	0.	.0029	.1821	.0027	.0006	.0000	.0014
24	240		71.	245.	18.	0.	0.	0.	.0027	.0953	.0027	.0008	.0000	.0014
25	255		46.	280.	86.	0.	0.	0.	.0000	.0000	.0027	.0009	.0000	.0014



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT PCDEL 1 Y SHOCK

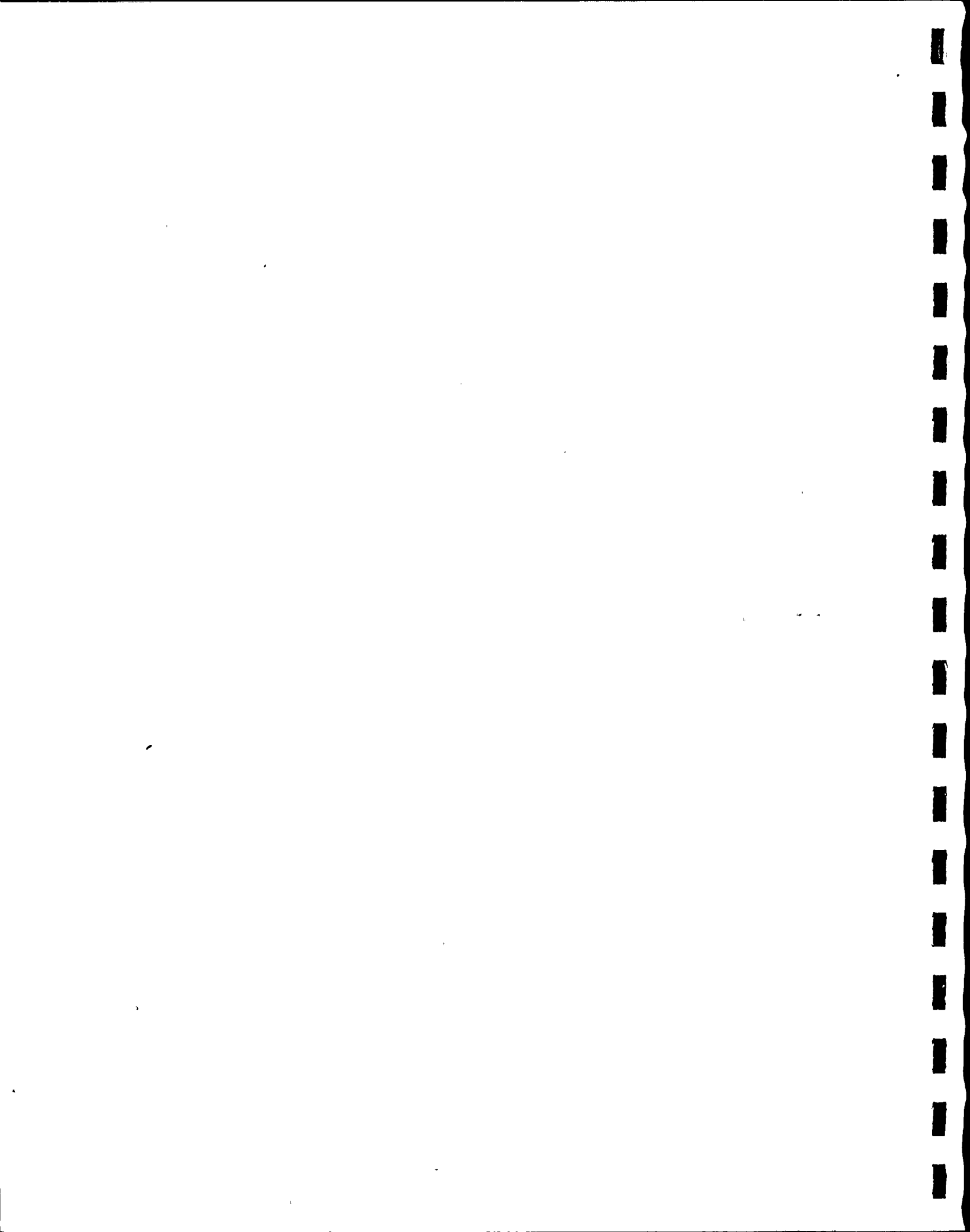
RMS MODAL SUMMARY

NETWORK POINT REACTIONS AND DEFLECTIONS

NET PT SEG	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT PCDEL 1 Y SHOCK



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE.
USAS 831.1 STRESS SUMMARY

SEC	MEM	SEQ	POS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
1	1	5	BEG	RU	85.7	57.8	180.9	0.0	1.000	1.000
		10	END	RU	85.7	57.2	180.7	0.0	1.000	1.000
1	2	10	BEG	EL	85.7	126.2	212.8	0.0	2.208	2.208
		15	END	EL	-13.5	388.2	389.1	0.0	2.208	2.208
2	1	15	BEG	RU	-13.5	175.8	177.9	0.0	1.000	1.000
		20	END	RU	-13.5	183.4	185.4	0.0	1.000	1.000
3	1	20	BEG	RU	-6.7	313.2	313.5	0.0	1.000	1.000
		25	END	RU	-6.7	297.4	297.7	0.0	1.000	1.000
3	2	25	BEG	RU	-6.7	297.4	297.7	0.0	1.000	1.000
		30	END	RU	-6.7	285.5	285.8	0.0	1.000	1.000
4	1	30	BEG	RU	-6.7	285.5	285.8	0.0	1.000	1.000
		35	END	RU	-6.7	271.9	272.3	0.0	1.000	1.000
4	2	35	BEG	RU	-6.7	271.9	272.3	0.0	1.000	1.000
		40	END	RU	-6.7	262.0	262.3	0.0	1.000	1.000
5	1	40	BEG	RU	-6.7	262.0	262.3	0.0	1.000	1.000
		45	END	RU	-6.7	247.1	247.5	0.0	1.000	1.000
5	2	45	BEG	RU	-6.7	247.1	247.5	0.0	1.000	1.000
		50	END	RU	-6.7	235.3	235.7	0.0	1.000	1.000
6	1	50	BEG	RU	-6.7	235.3	235.7	0.0	1.000	1.000
		55	END	RU	-6.7	196.0	196.4	0.0	1.000	1.000
6	2	55	BEG	RU	-3.3	96.0	96.3	0.0	1.000	1.000
		57	END	RU	-3.3	80.2	80.4	0.0	1.000	1.000
7	1	57	BEG	RU	-6.7	163.6	164.1	0.0	1.000	1.000
		60	END	RU	-6.7	96.0	96.9	0.0	1.000	1.000
7	2	60	BEG	RU	-6.7	96.0	96.9	0.0	1.000	1.000
		65	END	RU	-6.7	41.4	43.5	0.0	1.000	1.000
7	3	65	BEG	RU	-6.7	41.4	43.5	0.0	1.000	1.000
		70	END	RU	-6.7	56.7	58.2	0.0	1.000	1.000

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE,
USAS B31.1 STRESS SUMMARY

SEC	MEM	SEQ	POS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
6	1	70	BEG	RU	-6.7	56.7	58.2	0.0	1.000	1.000
		75	END	RU	-6.7	57.5	59.0	0.0	1.000	1.000
8	2	75	BEG	EL	-6.7	127.0	127.7	0.0	2.208	2.208
		80	END	EL	30.0	181.5	191.2	0.0	2.208	2.208
6	3	80	BEG	RU	30.0	82.2	101.8	0.0	1.000	1.000
		85	END	RU	30.0	82.0	102.1	0.0	1.000	1.000
9	1	85	BEG	RU	6.6	18.3	22.5	0.0	1.000	1.000
		86	END	RU	6.3	27.2	30.0	0.0	1.000	1.000
9	2	86	BEG	RU	6.3	27.2	30.0	0.0	1.000	1.000
		87	END	RU	8.9	25.2	30.9	0.0	1.000	1.000
10	1	87	BEG	RU	4.6	16.7	19.1	0.0	1.000	1.000
		88	END	RU	4.8	11.7	15.2	0.0	1.000	1.000
10	2	88	BEG	RU	4.8	11.7	15.2	0.0	1.000	1.000
		90	END	RU	-1.8	10.6	11.2	0.0	1.000	1.000
11	1	90	BEG	RU	-8.3	48.1	50.9	0.0	1.000	1.000
		95	END	RU	-8.3	47.8	50.6	0.0	1.000	1.000
11	2	95	BEG	EL	-8.3	105.5	106.8	0.0	2.208	2.208
		100	END	EL	2.7	26.9	27.4	0.0	2.208	2.208
12	1	100	BEG	RU	2.7	12.2	13.3	0.0	1.000	1.000
		105	END	RU	2.7	24.0	24.6	0.0	1.000	1.000
12	2	105	BEG	RU	1.3	11.8	12.1	0.0	1.000	1.000
		107	END	RU	1.3	33.7	33.8	0.0	1.000	1.000
13	1	107	BEG	RU	2.7	68.8	69.0	0.0	1.000	1.000
		110	END	RU	2.7	74.4	74.6	0.0	1.000	1.000
13	2	110	BEG	RU	2.7	74.4	74.6	0.0	1.000	1.000
		115	END	RU	2.7	79.9	80.1	0.0	1.000	1.000
14	1	115	BEG	RU	2.7	79.9	80.1	0.0	1.000	1.000
		120	END	RU	2.7	73.2	73.4	0.0	1.000	1.000
14	2	120	BEG	RU	2.7	73.2	73.4	0.0	1.000	1.000
		125	END	RU	2.7	66.5	66.7	0.0	1.000	1.000

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Y SHOCK

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE,
USAS 831.1 STRESS SUMMARY

SEC	MEM	SEQ	POS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
15	1	125	BEG	RU	2.7	66.5	66.7	0.0	1.000	1.000
		130	END	RU	2.7	39.8	40.2	0.0	1.000	1.000
15	2	130	BEG	RU	2.7	39.8	40.2	0.0	1.000	1.000
		135	END	RU	2.7	13.1	14.2	0.0	1.000	1.000
16	1	135	BEG	RU	2.7	13.1	14.2	0.0	1.000	1.000
		140	END	RU	2.7	4.0	6.7	0.0	1.000	1.000
16	2	140	BEG	EL	2.7	8.8	10.3	0.0	2.208	2.208
		145	END	EL	-15.4	54.1	62.3	0.0	2.208	2.208
16	3	145	BEG	RU	-15.4	24.5	39.3	0.0	1.000	1.000
		150	END	RU	-15.5	24.8	39.7	0.0	1.000	1.000
17	1	150	BEG	RU	-15.5	24.8	39.7	0.0	1.000	1.000
		155	END	RU	-21.6	39.5	58.6	0.0	1.000	1.000
18	1	20	BEG	RU	-37.6	2906.4	2901.3	0.0	1.000	1.000
		160	END	RU	-37.6	2409.2	2410.4	0.0	1.000	1.000
18	2	160	BEG	RU	-37.6	2409.2	2410.4	0.0	1.000	1.000
		165	END	RU	-37.6	1927.6	1929.1	0.0	1.000	1.000
18	3	165	BEG	RU	-14.7	751.8	752.3	0.0	1.000	1.000
		167	END	RU	-14.7	518.4	519.2	0.0	1.000	1.000
19	1	167	BEG	RU	-37.6	1329.2	1331.4	0.0	1.000	1.000
		170	END	RU	-37.6	897.8	901.0	0.0	1.000	1.000
19	2	170	BEG	RU	-37.6	897.8	901.0	0.0	1.000	1.000
		175	END	RU	-37.6	472.6	478.5	0.0	1.000	1.000
20	1	175	BEG	RU	-37.6	472.6	478.5	0.0	1.000	1.000
		180	END	RU	-37.6	150.4	168.2	0.0	1.000	1.000
20	2	180	BEG	RU	-37.6	150.4	168.2	0.0	1.000	1.000
		185	END	RU	-37.6	73.1	104.9	0.0	1.000	1.000
20	3	185	BEG	EL	-37.6	129.9	150.1	0.0	1.777	1.777
		190	END	EL	104.6	424.4	473.2	0.0	1.777	1.777
21	1	190	BEG	RU	104.6	238.9	317.5	0.0	1.000	1.000
		195	END	RU	104.6	240.5	318.7	0.0	1.000	1.000

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Y SHOCK

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
 BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE.
 USAS 031.1 STRESS SUMMARY

SEC	MEM	SEQ	PCS	TYPE	TGRSIGN	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS IN PLANE TRANSVERSE
21	2	195	BEG	RU	104.6	240.5	318.7	0.0	1.000
		200	END	RU	104.6	242.1	319.9	0.0	1.000
21	3	200	BEG	EL	104.6	430.1	478.3	0.0	1.777
		205	END	EL	168.6	200.9	392.5	0.0	1.777
22	1	205	BEG	RU	168.6	113.1	355.6	0.0	1.000
		210	END	RU	168.6	84.1	347.5	0.0	1.000
22	2	210	BEG	RU	168.6	84.1	347.5	0.0	1.000
		215	END	RU	168.6	56.7	341.9	0.0	1.000
22	3	215	BEG	EL	168.6	100.7	351.9	0.0	1.777
		220	END	EL	.0	696.8	696.8	0.0	1.777
23	1	220	BEG	RU	.0	392.1	392.1	0.0	1.000
		225	END	RU	.0	381.9	381.9	0.0	1.000
23	2	225	BEG	RU	.0	381.9	381.9	0.0	1.000
		230	END	RU	.0	359.9	359.9	0.0	1.000
23	3	230	BEG	RU	.0	359.9	359.9	0.0	1.000
		235	END	RU	.0	340.0	340.0	0.0	1.000
23	4	235	BEG	RU	.0	340.0	340.0	0.0	1.000
		240	END	RU	.0	322.7	322.7	0.0	1.000
24	1	240	BEG	RU	.0	322.7	322.7	0.0	1.000
		245	END	RU	.0	215.1	215.1	0.0	1.000
24	2	245	BEG	RU	.0	215.1	215.1	0.0	1.000
		250	END	RU	.0	107.6	107.6	0.0	1.000
24	3	250	BEG	RU	.0	107.6	107.6	0.0	1.000
		255	END	RU	.0	.0	.0	0.0	1.000

VERSION - ADLPIPE- JULY, 1975
REFERENCE - ADLPIPE MANUAL, DATED JANUARY 1975

FEATURES OF ADLPIPE-

1. ASME SECTION III , CLASS 1 STRESS ANALYSIS AND STRESS REPORT PER NB 3600
2. ASME SECTION III , CLASS 1 USAGE FACTOR CALCULATION
3. ASME SECTION III , CLASS 2 AND 3 STRESS ANALYSIS AND STRESS REPORT PER WINTER 1972 ADDENDA
4. ANSI B31.1 , 1967 AND 1973 STRESS ANALYSIS AND REPORT
5. ISOMETRIC PLOT WITH SEQUENCE NUMBERS
6. ISOMETRIC PLOTTING WITH OR WITHOUT DIMENSIONS
7. PLAN AND ELEVATION DRAWINGS WITH OR WITHOUT DIMENSIONS
8. STEREOSCOPIC VIEWS OF DEFORMED PIPING
9. SKEW RESTRAINT ADDED (SEE REFERENCED INPUT MANUAL P. 39)
10. REVISED TAPE 14 FILE STRUCTURE (SEE REFERENCED INPUT MANUAL P. 43)
11. OPTIONAL ABSOLUTE SUM ON CLOSELY SPACED MODES
(ACTIVATE BY SPECIFYING PERCENT RANGE OF MODES TO BE ABSOLUTELY SUMMED IN Z(2) FIELD ON SHOCK CARD)
12. HANGER SUMMARY IS AUTOMATICALLY PROVIDED

FOR FURTHER INFORMATION OR COMMENT CONTACT-

I. A. DINGWELL
A. D. LITTLE, INC
ACORN PARK
CAMBRIDGE, MASS 02140
TEL (617) 864-5770

ADLPIPE PAGE 2

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCDL 1 2 SHOCK

COMPILED INPUT DATA

SA	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
B3	1	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SH	1	20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DI	0	3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FR	1	6	.1000	.3000	.5000	.7000	.8000	.9000
FR	7	12	1.0000	2.0000	3.0000	4.0000	5.0000	6.0000
FR	13	17	8.0000	10.0000	20.0000	50.0000	100.0000	0.0000
G	1	6	.0500	.0580	.0700	.0930	.1100	.1200
G	7	12	.1300	.2400	.3200	.3800	.4200	.4200
G	13	17	.3900	.3500	.2400	.1400	.1100	0.0000
EN	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 3

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCDL 1 2 SHOCK

PIPE SYSTEM GEOMETRY
 NUMBER OF NETWORK POINTS = 25
 NUMBER OF SECTIONS = 24
 ORDER OF DYNAMICAL STIFFNESS MATRIX = 64

NUMBER OF MEMBERS = 56
 ORDER OF STIFFNESS MATRIX = 66

NETWORK POINT RESTRAINTS

NETWORK PT.	SEQ	TRANSLATION			ROTATION		
		X	Y	Z	X	Y	Z
1	5	RST	RST	RST	RST	RST	RST
2	15	FREE	FREE	FREE	FREE	FREE	FREE
3	20	FREE	FREE	FREE	FREE	FREE	FREE
4	30	FREE	FREE	FREE	FREE	FREE	FREE
5	40	FREE	FREE	FREE	FREE	FREE	FREE
6	50	FREE	FREE	FREE	FREE	FREE	FREE
7	57	FREE	FREE	FREE	FREE	FREE	FREE
8	70	FREE	FREE	FREE	FREE	FREE	FREE
9	85	FREE	FREE	FREE	FREE	FREE	FREE
10	87	RST	RST	RST	RST	RST	RST
11	90	FREE	FREE	FREE	FREE	FREE	FREE
12	100	FREE	FREE	FREE	FREE	FREE	FREE
13	107	FREE	FREE	FREE	FREE	FREE	FREE
14	115	FREE	FREE	FREE	FREE	FREE	FREE
15	125	FREE	FREE	FREE	FREE	FREE	FREE
16	135	FREE	FREE	FREE	FREE	FREE	FREE
17	150	FREE	FREE	FREE	FREE	FREE	FREE
18	155	RST	RST	RST	RST	RST	RST
19	167	FREE	FREE	FREE	FREE	FREE	FREE
20	175	FREE	FREE	FREE	FREE	FREE	FREE
21	190	FREE	FREE	FREE	FREE	FREE	FREE
22	205	FREE	FREE	FREE	FREE	FREE	FREE
23	220	FREE	FREE	FREE	FREE	FREE	FREE
24	240	FREE	FREE	FREE	FREE	FREE	FREE
25	255	RST	RST	FREE	FREE	FREE	FREE

NETWORK POINT MOVEMENTS (INCHES)

NETWORK PT.	SEQ	TRANSLATION			ROTATION		
		X	Y	Z	X	Y	Z



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

NO MOVEMENTS

ADLPIPE PAGE 5

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE PAGE 5

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

RESPONSE SPECTRA

FREQUENCY Z AMPLITUDE

.10	52.7985
.30	6.3011
.50	2.7377
.70	1.8557
.80	1.6805
.90	1.4485
1.00	1.2711
2.00	.5866
3.00	.3476
4.00	.2322
5.00	.1643
6.00	.1141
8.00	.0596
10.00	.0342
20.00	.0059
50.00	.0005
100.00	.0001

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

* NOTE *

FOR CURVED MEMBERS, QUANTITIES LISTED UNDER
INITIAL CO-ORDS ARE CO-ORDS OF ARC CENTER
THE BRACKETED NUMBERS WHICH FOLLOW ARE THE
ARC RADIUS (IN), INCLUDED ANGLE (DEG).

* NOTE *

FOR THIS VERSION, CO-ORD DIMENSIONS IN FEET
ALL OTHER QUANTITIES, RADIUS, THICKNESS, STRESS
MOMENTS, ETC. ARE DIMENSIONED IN INCHES.

PIPE SYSTEM GEOMETRY

SECTION 1 CONNECTS SEQUENCE POINTS 5 AND 15 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	5	10	14.00	1.050	2.59	274.75	12.19	2.60	274.75	12.24	.27E+08	0.00	0.	44.18
2	EL/EL	10	15	14.00	1.050	2.60	271.00	12.24	(45,000 90,000)			.27E+08	0.00	0.	44.18

SECTION 2 CONNECTS SEQUENCE POINTS 15 AND 20 AND HAS 1 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	15	20	14.00	1.050	3.38	271.00	15.91	3.38	269.25	15.91	.27E+08	0.00	0.	44.18

SECTION 3 CONNECTS SEQUENCE POINTS 20 AND 30 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	20	25	14.00	1.050	3.38	269.25	15.91	3.38	266.29	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	25	30	14.00	1.050	3.38	266.29	15.91	3.38	263.32	15.91	.27E+08	0.00	0.	44.18

SECTION 4 CONNECTS SEQUENCE POINTS 30 AND 40 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	30	35	14.00	1.050	3.38	263.32	15.91	3.38	260.36	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	35	40	14.00	1.050	3.38	260.36	15.91	3.38	257.39	15.91	.27E+08	0.00	0.	44.18

SECTION 5 CONNECTS SEQUENCE POINTS 40 AND 50 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	40	45	14.00	1.050	3.38	257.39	15.91	3.38	254.43	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	45	50	14.00	1.050	3.38	254.43	15.91	3.38	251.46	15.91	.27E+08	0.00	0.	44.18

SECTION 6 CONNECTS SEQUENCE POINTS 50 AND 57 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	50	55	14.00	1.050	3.38	251.46	15.91	3.38	246.46	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	55	57	15.00	2.050	3.38	246.46	15.91	3.38	241.04	15.91	.27E+08	0.00	0.	215.20

SECTION 7 CONNECTS SEQUENCE POINTS 57 AND 70 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	CUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	57	60	14.00	1.050	3.38	241.04	15.91	3.38	237.74	15.91	.27E+08	0.00	0.	44.18
2	RU/RU	60	65	14.00	1.050	3.38	237.74	15.91	3.38	234.44	15.91	.27E+08	0.00	0.	44.18
3	RU/RU	65	70	14.00	1.050	3.38	234.44	15.91	3.38	231.64	15.91	.27E+08	0.00	0.	44.18

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

SECTION 8 CONNECTS SEQUENCE POINTS 70 AND 85 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	70	75	14.00	1.050	3.38	231.64	15.91	3.38	231.59	15.91	.27E+08	0.00	0.	44.18
2	EL/EL	75	80	14.00	1.050	7.11	231.59	15.49	(45,000 90,000)			.27E+08	0.00	0.	44.18
3	RU/RU	80	85	14.00	1.050	7.11	227.84	15.49	7.16	227.84	15.49	.27E+08	0.00	0.	44.18

SECTION 9 CONNECTS SEQUENCE POINTS 85 AND 87 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	85	86	15.00	10.000	7.16	227.84	15.49	9.42	227.84	15.23	.27E+08	0.00	0.	324.36
2	RU/RU	86	87	15.00	10.000	9.42	227.84	15.23	9.42	232.17	15.23	.27E+08	0.00	0.	324.36

SECTION 10 CONNECTS SEQUENCE POINTS 87 AND 90 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	87	88	15.00	10.000	9.42	232.17	15.23	12.04	232.17	15.71	.27E+08	0.00	0.	324.36
2	RU/RU	88	90	15.00	10.000	12.04	232.17	15.71	12.48	232.17	13.30	.27E+08	0.00	0.	324.36

SECTION 11 CONNECTS SEQUENCE POINTS 90 AND 100 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	90	95	14.00	1.050	12.48	232.17	13.30	12.48	232.17	13.25	.27E+08	0.00	0.	44.18
2	EL/EL	95	100	14.00	1.050	12.48	235.92	13.25	(45,000 90,000)			.27E+08	0.00	0.	44.18

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

SECTION12 CONNECTS SEQUENCE POINTS 100 AND 107 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	100	105	14.00	1.050	13.15	235.92	9.56	13.15	237.17	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	105	107	15.00	2.050	13.15	237.17	9.56	13.15	241.75	9.56	.27E+08	0.00	0.	173.10

SECTION13 CONNECTS SEQUENCE POINTS 107 AND 115 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	107	110	14.00	1.050	13.15	241.75	9.56	13.15	244.71	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	110	115	14.00	1.050	13.15	244.71	9.56	13.15	247.66	9.56	.27E+08	0.00	0.	44.18

SECTION14 CONNECTS SEQUENCE POINTS 115 AND 125 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	115	120	14.00	1.050	13.15	247.66	9.56	13.15	250.62	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	120	125	14.00	1.050	13.15	250.62	9.56	13.15	253.57	9.56	.27E+08	0.00	0.	44.18

SECTION15 CONNECTS SEQUENCE POINTS 125 AND 135 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	125	130	14.00	1.050	13.15	253.57	9.56	13.15	257.57	9.56	.27E+08	0.00	0.	44.18
2	RU/RU	130	135	14.00	1.050	13.15	257.57	9.56	13.15	261.57	9.56	.27E+08	0.00	0.	44.18

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK

SECTION 16 CONNECTS SEQUENCE POINTS 135 AND 150 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	135	140	14.00	1.050	13.15	261.57	9.56	13.15	262.64	9.56	.27E+08	0.00	0.	44.18
2	EL/EL	140	145	14.00	1.050	10.12	262.64	7.35	(45,000 75,997)			.27E+08	0.00	0.	44.18
3	RU/RU	145	150	14.00	1.050	10.85	266.28	7.89	10.81	266.29	7.85	.27E+08	0.00	0.	44.18

SECTION 17 CONNECTS SEQUENCE POINTS 150 AND 155 AND HAS 1 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	150	155	14.00	1.050	10.81	266.29	7.85	8.47	267.02	6.15	.27E+08	0.00	0.	44.18

SECTION 18 CONNECTS SEQUENCE POINTS 160 AND 167 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	160	167	7.00	.753	3.38	269.25	15.91	.80	269.25	15.91	.27E+08	0.00	0.	13.18
2	RU/RU	160	165	7.00	.753	.80	269.25	15.91	-1.77	269.25	15.91	.27E+08	0.00	0.	13.18
3	RU/RU	165	167	8.00	1.753	-1.77	269.25	15.91	-5.14	269.25	15.91	.27E+08	0.00	0.	98.17

SECTION 19 CONNECTS SEQUENCE POINTS 167 AND 175 AND HAS 2 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	167	170	7.00	.753	-5.14	269.25	15.91	-8.48	269.25	15.91	.27E+08	0.00	0.	13.18
2	RU/RU	170	175	7.00	.753	-8.48	269.25	15.91	-11.82	269.25	15.91	.27E+08	0.00	0.	13.18

SECTION20 CONNECTS SEQUENCE POINTS 175 AND 190 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN	
						X	Y	Z	X	Y	Z					
1	RU/RU	175	180	7.00	.753	-11.82	269.25	15.91	-15.17	269.25	15.91	.27E+08	0.00	0.	13.18	
2	RU/RU	180	185	7.00	.753	-15.17	269.25	15.91	-16.76	269.25	15.91	.27E+08	0.00	0.	13.18	
3	EL/EL	185	190	7.00	.753	-16.76	269.37	17.65	(21,000	90,000)	.27E+08	0.00	0.	13.18

SECTION21 CONNECTS SEQUENCE POINTS 190 AND 205 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN	
						X	Y	Z	X	Y	Z					
1	RU/RU	190	195	7.00	.753	-18.51	269.37	17.65	-18.51	269.38	17.68	.27E+08	0.00	0.	13.18	
2	RU/RU	195	200	7.00	.753	-18.51	269.38	17.68	-18.51	269.38	17.71	.27E+08	0.00	0.	13.18	
3	EL/EL	200	205	7.00	.753	-16.76	269.38	17.71	(21,000	90,000)	.27E+08	0.00	0.	13.18

SECTION22 CONNECTS SEQUENCE POINTS 205 AND 220 AND HAS 3 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN	
						X	Y	Z	X	Y	Z					
1	RU/RU	205	210	7.00	.753	-16.76	269.50	19.45	-15.88	269.50	19.45	.27E+08	0.00	0.	13.18	
2	RU/RU	210	215	7.00	.753	-15.88	269.50	19.45	-15.01	269.50	19.45	.27E+08	0.00	0.	13.18	
3	EL/EL	215	220	7.00	.753	-15.01	269.50	21.26	(21,000	90,000)	.27E+08	0.00	0.	13.18

SECTION23 CONNECTS SEQUENCE POINTS 220 AND 240 AND HAS 4 MEMBERS.

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-GRDS			FINAL CO-GRDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	220	225	7.00	.753	-13.26	269.50	21.26	-13.26	269.50	22.57	.27E+08	0.00	0.	13.18
2	RU/RU	225	230	7.00	.753	-13.26	269.50	22.57	-13.26	269.50	25.68	.27E+08	0.00	0.	13.18

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 Z SHOCK

3 RU/RU	230	235	7.00	.753	-13.26	269.50	25.68	-13.26	269.50	28.79	.27E+08	0.00 0.	13.18
4 RU/RU	235	240	7.00	.753	-13.26	269.50	28.79	-13.26	269.50	31.91	.27E+08	0.00 0.	13.18

SECTION 24 CONNECTS SEQUENCE POINTS 240 AND 255 AND HAS 3 MEMBERS,

MEM	TYPE	FROM	TO	OUTER RAD. IN	WALL THK. IN	INITIAL CO-ORDS			FINAL CO-ORDS			MODULUS LB/SQ IN	CHANGE DEG F	EXPAN. IN/IN	WEIGHT LB/IN
						X	Y	Z	X	Y	Z				
1	RU/RU	240	245	7.00	.753	-13.26	269.50	31.91	-13.26	269.50	35.02	.27E+08	0.00 0.	13.18	
2	RU/RU	245	250	7.00	.753	-13.26	269.50	35.02	-13.26	269.50	38.13	.27E+08	0.00 0.	13.18	
3	RU/RU	250	255	7.00	.753	-13.26	269.50	38.13	-13.26	269.50	41.25	.27E+08	0.00 0.	13.18	
WEIGHT						.66E+04									



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

MODAL DEFLECTIONS FOR 20 FREQUENCIES
DEFLECTIONS INCLUDE SHOCK SPECTRA DISPLACEMENTS AND MODAL PARTICIPATION FACTORS

LUMP	DIR	MODE AND FREQUENCY									
		1 1.927	2 3.721	3 7.612	4 8.611	5 11.594	6 13.072	7 13.839	8 15.604	9 15.926	10 18.087
15	1	.015	.000	.009	-.007	.000	-.000	0.000	0.000	.000	.000
15	2	.002	.000	.006	-.000	-.000	.000	0.000	0.000	.000	-.000
15	3	.001	.000	.007	.003	-.000	.000	0.000	0.000	.000	-.000
20	1	.017	.000	.013	-.010	.000	-.000	0.000	0.000	.000	.000
20	2	.002	.000	.006	-.000	-.000	.000	0.000	0.000	.000	-.000
20	3	.002	.000	.012	.006	-.000	.000	0.000	0.000	.000	-.000
30	1	.026	.000	.026	-.021	-.000	-.000	0.000	0.000	-.000	.000
30	2	.002	.000	.006	-.000	-.000	.000	0.000	0.000	.000	-.000
30	3	.007	.000	.028	.018	-.000	.000	0.000	0.000	.000	-.000
40	1	.021	.000	.036	-.029	-.000	.000	0.000	0.000	-.000	.000
40	2	.002	.000	.006	-.001	-.000	.000	0.000	0.000	.000	-.000
40	3	.010	.000	.040	.027	-.000	.000	0.000	0.000	.000	-.000
50	1	.019	.000	.041	-.032	-.000	.000	0.000	0.000	-.000	.000
50	2	.002	.000	.006	-.001	-.000	.000	0.000	0.000	.000	-.000
50	3	.011	.000	.044	.031	-.000	.000	0.000	0.000	-.000	-.000
57	1	.012	.000	.031	-.023	-.000	.000	0.000	0.000	-.000	-.000
57	2	.002	.000	.006	-.001	-.000	.000	0.000	0.000	.000	-.000
57	3	.010	.000	.035	.025	.000	.000	0.000	0.000	-.000	.000
70	1	.003	.000	.009	-.004	-.000	.000	0.000	0.000	.000	-.000
70	2	.002	.000	.006	-.001	-.000	.000	0.000	0.000	.000	-.000
70	3	.007	.000	.013	.008	.000	.000	0.000	0.000	-.000	.000
85	1	-.000	.000	-.000	-.000	-.000	.000	0.000	0.000	-.000	.000
85	2	.000	-.000	.000	.000	.000	.000	0.000	0.000	.000	-.000
85	3	.006	.000	.001	.000	.000	.000	0.000	0.000	-.000	.000
90	1	0.000	0.000	0.000	0.000	0.000	0.000	.000	-.000	0.000	0.000
90	2	0.000	0.000	0.000	0.000	0.000	0.000	.000	-.000	0.000	0.000
90	3	0.000	0.000	0.000	0.000	0.000	0.000	.000	-.000	0.000	0.000
100	1	0.000	0.000	0.000	0.000	0.000	0.000	.004	-.002	0.000	0.000
100	2	0.000	0.000	0.000	0.000	0.000	0.000	.003	.000	0.000	0.000
100	3	0.000	0.000	0.000	0.000	0.000	0.000	.005	.001	0.000	0.000
107	1	0.000	0.000	0.000	0.000	0.000	0.000	.007	-.005	0.000	0.000
107	2	0.000	0.000	0.000	0.000	0.000	0.000	.003	.000	0.000	0.000
107	3	0.000	0.000	0.000	0.000	0.000	0.000	.011	.002	0.000	0.000
115	1	0.000	0.000	0.000	0.000	0.000	0.000	.008	-.006	0.000	0.000
115	2	0.000	0.000	0.000	0.000	0.000	0.000	.003	.000	0.000	0.000
115	3	0.000	0.000	0.000	0.000	0.000	0.000	.014	.004	0.000	0.000
125	1	0.000	0.000	0.000	0.000	0.000	0.000	.007	-.005	0.000	0.000
125	2	0.000	0.000	0.000	0.000	0.000	0.000	.003	.000	0.000	0.000
125	3	0.000	0.000	0.000	0.000	0.000	0.000	.013	.004	0.000	0.000
135	1	0.000	0.000	0.000	0.000	0.000	0.000	.002	-.002	0.000	0.000
135	2	0.000	0.000	0.000	0.000	0.000	0.000	.003	.000	0.000	0.000
135	3	0.000	0.000	0.000	0.000	0.000	0.000	.006	.002	0.000	0.000
150	1	0.000	0.000	0.000	0.000	0.000	0.000	-.000	-.000	0.000	0.000
150	2	0.000	0.000	0.000	0.000	0.000	0.000	.000	.000	0.000	0.000
150	3	0.000	0.000	0.000	0.000	0.000	0.000	.000	.000	0.000	0.000
167	1	.017	.000	.013	-.010	.000	-.000	0.000	0.000	.000	.000
167	2	-.005	-.000	-.001	.003	.000	.000	0.000	0.000	.000	-.001
167	3	.201	.000	.016	.002	.000	-.000	0.000	0.000	.003	.000



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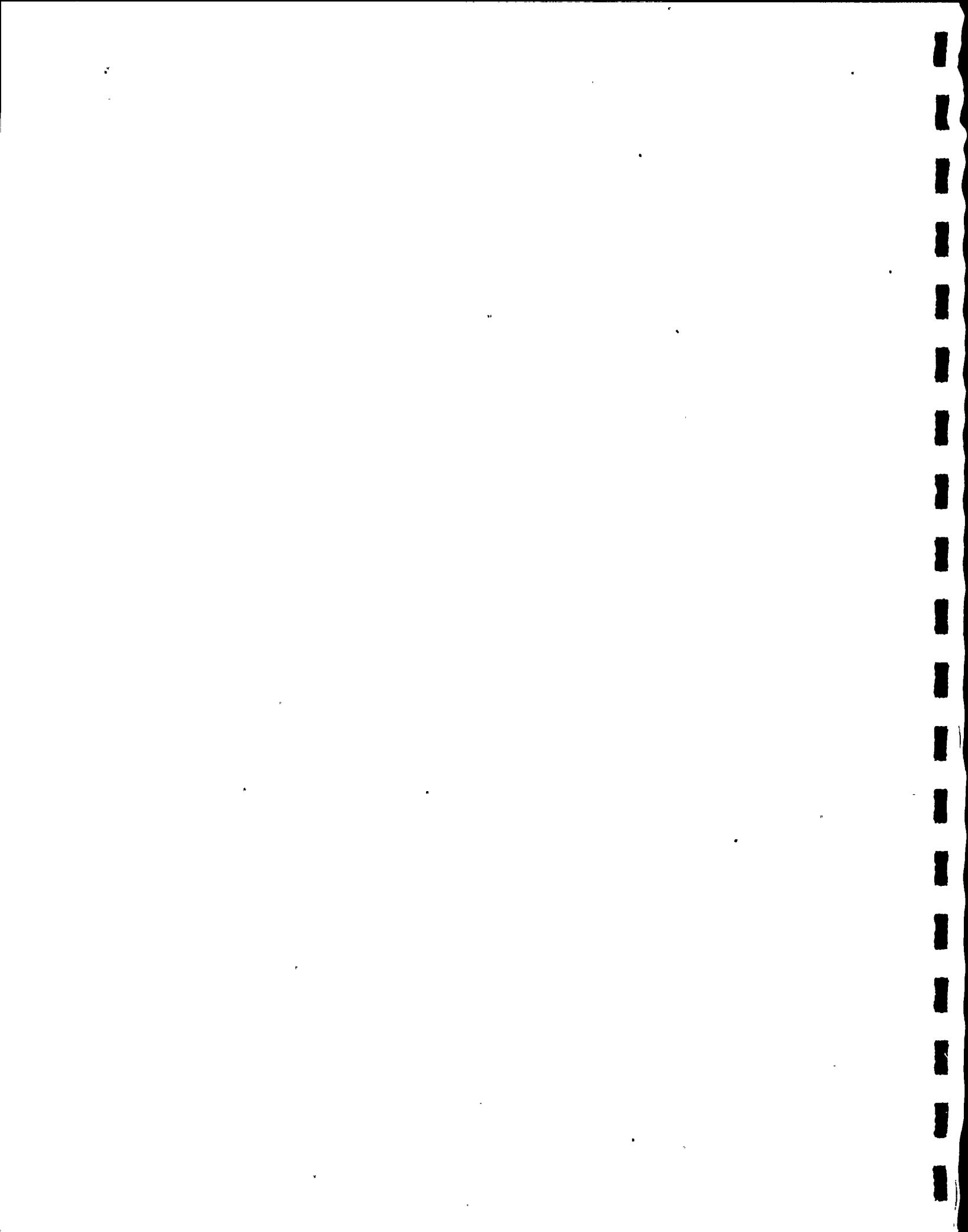
ARTHUR D. LITTLE INC.
NINE MILE POWER STATADLPIPE STRESS ANALYSIS
MODEL 1 2 SHOCK

175	1	.017	.000	.013	-.010	.000	-.000	0.000	0.000	.000	.000
175	2	-.011	-.000	.004	-.004	.000	.000	0.000	0.000	.000	-.000
175	3	.451	.000	.009	-.000	.001	-.000	0.000	0.000	.003	.000
190	1	.066	.000	.012	-.012	.001	-.000	0.000	0.000	-.001	.000
190	2	-.018	-.001	.016	-.015	.000	.001	0.000	0.000	-.001	.001
190	3	.707	-.000	-.002	-.004	.002	-.000	0.000	0.000	-.001	-.000
205	1	.091	.000	.013	-.015	.001	-.000	0.000	0.000	-.001	.000
205	2	-.012	-.001	.017	-.012	.000	.000	0.000	0.000	-.000	.001
205	3	.690	-.000	-.003	-.002	.001	-.000	0.000	0.000	-.000	-.000
220	1	.089	.000	.014	-.016	.002	-.000	0.000	0.000	-.001	-.000
220	2	-.007	-.000	.015	-.007	-.000	-.001	0.000	0.000	-.000	-.000
220	3	.686	-.000	-.007	.001	-.000	.000	0.000	0.000	-.000	-.000
240	1	.047	.000	.011	-.012	.002	-.000	0.000	0.000	-.001	-.000
240	2	-.004	-.000	.011	-.005	-.000	-.001	0.000	0.000	-.000	.000
240	3	.687	-.000	-.007	.001	-.000	.000	0.000	0.000	-.000	-.000
255	3	.687	-.000	-.007	.001	-.000	.000	0.000	0.000	-.001	-.000

MODE AND FREQUENCY

		11	12	13	14	15	16	17	18	19	20
LUMP	DIR	21.273	23.561	27.611	28.677	31.573	32.317	36.573	41.836	47.390	48.929

MODAL DEFLECTIONS ARE LESS THAN .001 INCH OR .025 MM



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCKLOADS
SHOCK

SC	ME	SEQ	POS	MODE FX (LB)	1 FREQUENCY FY (LB)	FZ (LB)	1,93 RX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	197.	1030.	-3522.	106203.	-465551.	157806.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-197.	-1030.	3522.	-106807.	466107.	-157677.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
1	2	15	END	-197.	-1030.	3522.	6342.	507727.	-139176.	.0154	.0024	.0007	-0.0001	.0005	.0001
2	1	15	BEG	209.	1032.	-3521.	-6342.	-507727.	139176.	.0154	.0024	.0007	-0.0001	.0005	.0001
2	1	20	END	-209.	-1032.	3521.	80287.	507727.	-134787.	.0170	.0024	.0024	-0.0001	.0006	.0001
3	1	20	BEG	232.	1022.	55.	-75149.	154500.	136889.	.0170	.0024	.0024	-0.0001	.0006	.0001
3	1	25	END	-232.	-1022.	-55.	73192.	-154500.	-128643.	.0190	.0023	.0048	-0.0001	.0005	.0000
3	2	30	END	-232.	-1022.	-55.	71235.	-154500.	-120398.	.0202	.0023	.0068	-0.0000	.0005	.0000
4	1	30	BEG	256.	1025.	63.	-71235.	154500.	120398.	.0202	.0023	.0068	-0.0000	.0005	.0000
4	1	35	END	-256.	-1025.	-63.	68990.	-154500.	-111288.	.0208	.0023	.0083	-0.0000	.0005	.0000
4	2	40	END	-256.	-1025.	-63.	66745.	-154500.	-102179.	.0207	.0023	.0095	-0.0000	.0004	-0.0000
5	1	40	BEG	281.	1028.	75.	-66745.	154500.	102179.	.0207	.0023	.0095	-0.0000	.0004	-0.0000
5	1	45	END	-281.	-1028.	-75.	64092.	-154500.	-92188.	.0201	.0023	.0103	-0.0000	.0004	-0.0000
5	2	50	END	-281.	-1028.	-75.	61440.	-154500.	-82197.	.0169	.0023	.0107	-0.0000	.0004	-0.0000
6	1	50	BEG	315.	1032.	94.	-61440.	154500.	82197.	.0189	.0023	.0107	-0.0000	.0004	-0.0000
6	1	55	END	-315.	-1032.	-94.	55801.	-154500.	-63288.	.0159	.0022	.0106	.0000	.0003	-0.0001
6	2	57	END	-315.	-1032.	-94.	49693.	-154500.	-42806.	.0118	.0022	.0098	.0000	.0003	-0.0001
7	1	57	BEG	387.	1045.	154.	-49693.	154500.	42806.	.0118	.0022	.0098	.0000	.0003	-0.0001
7	1	60	END	-387.	-1045.	-154.	43599.	-154500.	-27480.	.0090	.0022	.0090	.0000	.0003	-0.0001
7	2	65	END	-387.	-1045.	-154.	37505.	-154500.	-12154.	.0061	.0022	.0079	.0000	.0002	-0.0001
7	3	70	END	-387.	-1045.	-154.	32330.	-154500.	860.	.0035	.0022	.0067	.0000	.0002	-0.0001
8	1	70	BEG	392.	1049.	164.	-32330.	154500.	-860.	.0035	.0022	.0067	.0000	.0002	-0.0001
8	1	75	END	-392.	-1049.	-164.	32231.	-154500.	1096.	.0034	.0022	.0067	.0000	.0002	-0.0001
8	2	80	END	-392.	-1049.	-164.	30008.	-163778.	65654.	-0.0001	.0002	.0004	-0.0000	.0000	-0.0000

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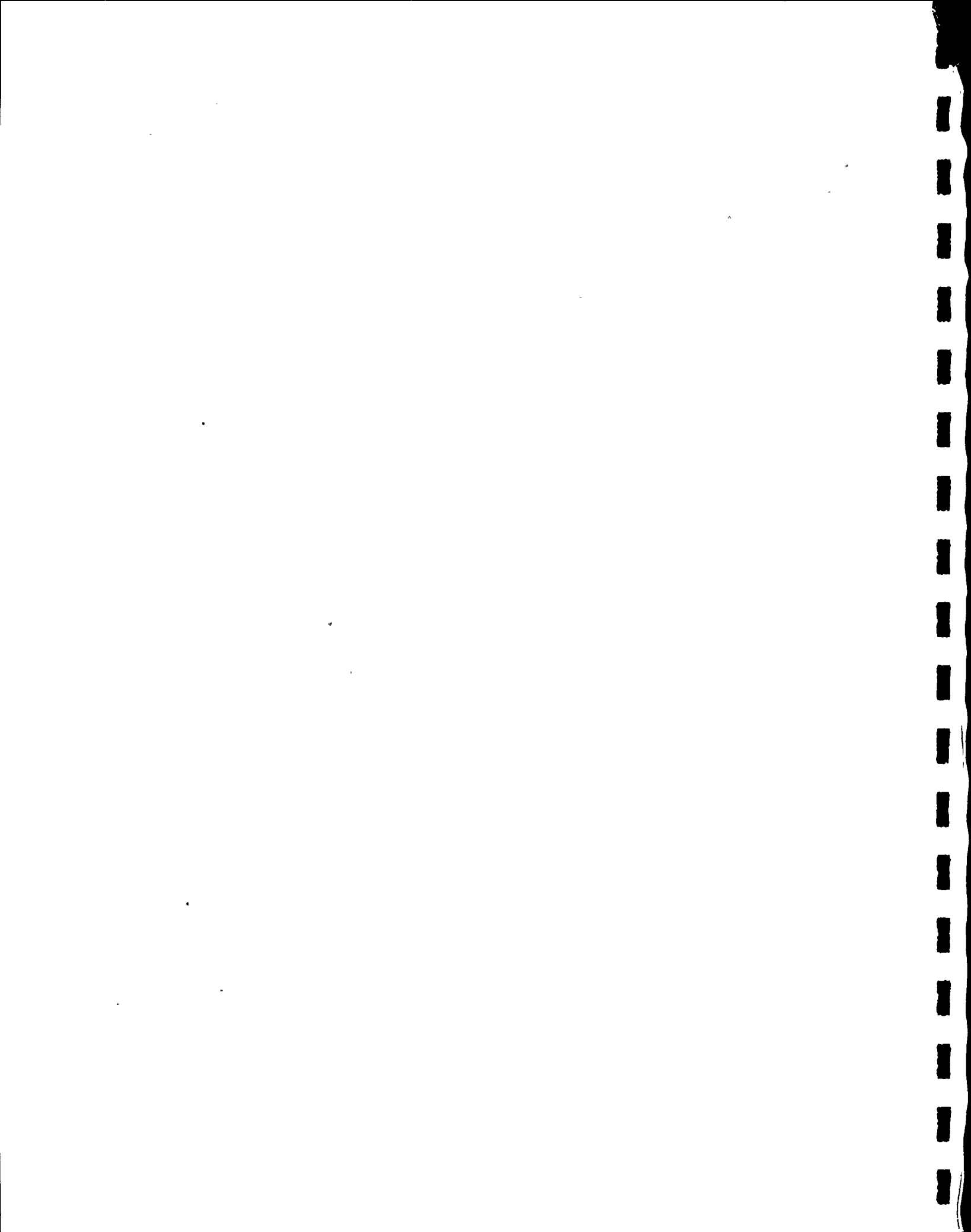
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE PAGE 16

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 2 SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	EY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-392.	-1049.	-164.	30077.	-163901.	66277.	-.0001	.0002	.0004	-.0000	.0000	-.0000
9	1	85	BEG	392.	1050.	166.	-30077.	163901.	-66277.	-.0001	.0002	.0004	-.0000	.0000	-.0000
9	1	86	END	-392.	-1050.	-166.	33301.	-169620.	94754.	-.0001	.0000	.0001	-.0000	.0000	-.0000
9	2	87	END	-392.	-1050.	-166.	41955.	-169620.	74384.	.0000	0.0000	-.0000	-.0000	0.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

SC	HE	SEO	POS	FY (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-5.	12.	-3574.	-5138.	-662227.	-2102.	.0170	.0024	.0024	-.0001	.0006	.0001
18	1	160	END	5.	-12.	3574.	5138.	551799.	1726.	.0170	.0002	.0366	-.0001	.0016	.0001
18	2	165	END	5.	-12.	3574.	5138.	441372.	1350.	.0170	-.0020	.0987	-.0001	.0024	.0001
18	3	167	END	5.	-12.	3574.	5138.	296851.	858.	.0170	-.0050	.2011	-.0000	.0026	.0001
19	1	167	BEG	25.	3.	-3219.	-5138.	-296851.	-658.	.0170	-.0050	.2011	-.0000	.0026	.0001
19	1	170	END	-25.	-3.	3219.	5138.	167742.	720.	.0170	-.0080	.3189	-.0000	.0031	.0001
19	2	175	END	-25.	-3.	3219.	5138.	38633.	581.	.0170	-.0111	.4510	-.0000	.0034	.0001
20	1	175	BEG	32.	-1.	-3025.	-5138.	-38633.	-581.	.0170	-.0111	.4510	-.0000	.0034	.0001
20	1	180	END	-32.	1.	3025.	5138.	-82670.	634.	.0170	-.0142	.5864	-.0000	.0033	.0001
20	2	185	END	-32.	1.	3025.	5138.	-140453.	860.	.0169	-.0157	.6491	.0000	.0032	.0001
20	3	190	END	-32.	1.	3025.	640.	-203301.	639.	.0657	-.0175	.7066	-.0000	.0018	.0001
21	1	190	BEG	53.	-7.	-2802.	-640.	203301.	-639.	.0657	-.0175	.7066	-.0000	.0018	.0001
21	1	195	END	-53.	7.	2802.	575.	-203283.	638.	.0663	-.0175	.7066	-.0000	.0018	.0001
21	2	200	END	-53.	7.	2802.	507.	-203264.	637.	.0669	-.0175	.7066	-.0000	.0018	.0001
21	3	205	END	-53.	7.	2802.	-3550.	-143318.	415.	.0914	-.0141	.6904	.0000	.0003	.0002
22	1	205	BEG	73.	-10.	-2650.	3550.	143318.	-415.	.0914	-.0141	.6904	.0000	.0003	.0002
22	1	210	END	-73.	10.	2650.	-3550.	-115469.	311.	.0914	-.0122	.6877	.0000	.0002	.0002
22	2	215	END	-73.	10.	2650.	-3550.	-87660.	207.	.0914	-.0104	.6857	.0000	.0002	.0002
22	3	220	END	-73.	10.	2650.	-3342.	-30473.	-0.	.0887	-.0066	.6863	-.0000	-.0002	.0002
23	1	220	BEG	113.	-13.	-2337.	3342.	30473.	-0.	.0887	-.0066	.6863	-.0000	-.0002	.0002
23	1	225	END	-113.	13.	2337.	-3132.	-28619.	0.	.0846	-.0064	.6864	-.0000	-.0003	.0002
23	2	230	END	-113.	13.	2337.	-2651.	-24383.	0.	.0739	-.0057	.6865	-.0000	-.0003	.0002

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

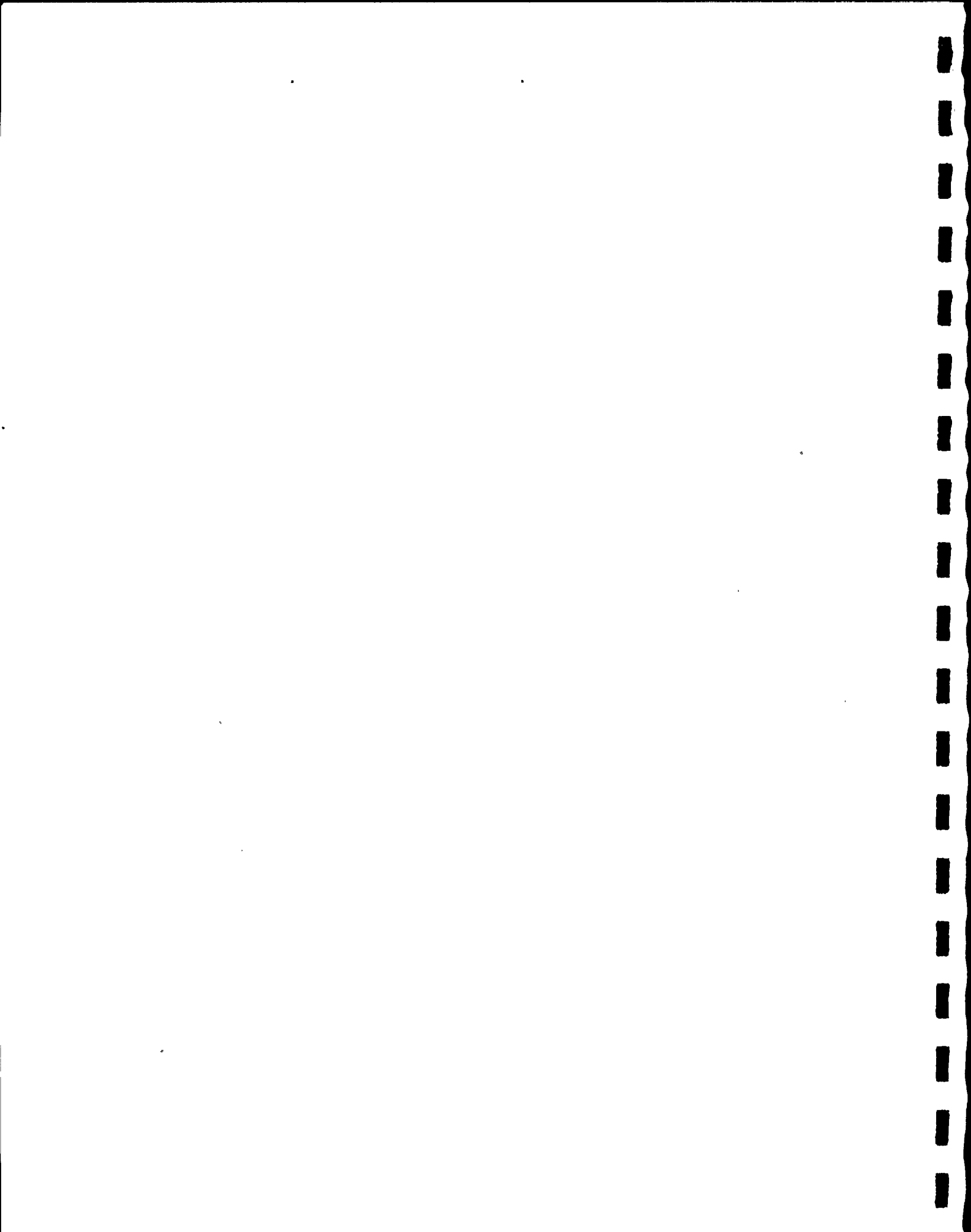


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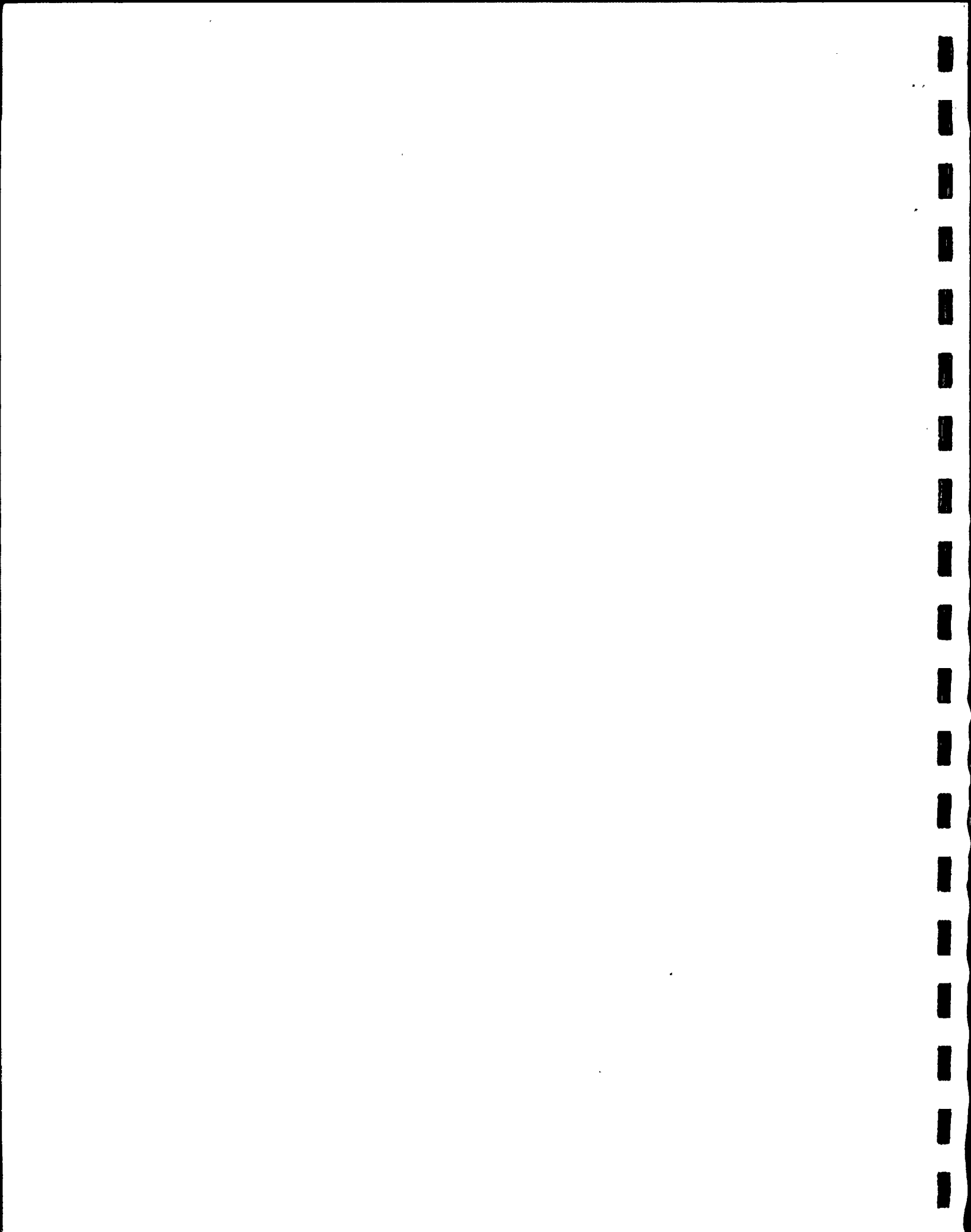
ARTHUR D. LITTLE INC.
NINE MILE POKER STAT MODEL 1 2 SHOCK

ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	OX (IN)	OY (IN)	OZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-113.	13.	2337.	-2170.	-20148.	0.	.0614	-.0048	.6866	-.0000	-.0004	.0002
23	4	240	END	-113.	13.	2337.	-1689.	-15913.	0.	.0474	-.0037	.6867	-.0000	-.0004	.0002
24	1	240	BEG	142.	-15.	-1923.	1689.	15913.	0.	.0474	-.0037	.6867	-.0000	-.0004	.0002
24	1	245	END	-142.	15.	1923.	-1126.	-10609.	0.	.0323	-.0026	.6868	-.0000	-.0004	.0002
24	2	250	END	-142.	15.	1923.	-563.	-5304.	0.	.0163	-.0013	.6869	-.0000	-.0004	.0002
24	3	255	OIS	0.	0.	0.	0.	0.	0.	-.0000	.0000	.6869	-.0000	-.0004	.0002
24	3	255	END	-142.	15.	1923.	0.	0.	0.	-.0000	.0000	.6869	-.0000	-.0004	.0002



NET PT	SEG	NETWORK POINT REACTIONS AND DEFLECTIONS											
		FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	197.	1030.	-3522.	106203.	-465551.	157806.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	12.	2.	1.	0.	0.	-0.	.0154	.0024	.0007	-.0001	.0005	.0001
3	20	17.	2.	2.	0.	-0.	-0.	.0170	.0024	.0024	-.0001	.0006	.0001
4	30	24.	3.	8.	0.	-0.	-0.	.0202	.0023	.0063	-.0000	.0005	.0000
5	40	25.	3.	11.	0.	0.	0.	.0207	.0023	.0095	-.0000	.0004	-.0000
6	50	34.	4.	19.	0.	-0.	0.	.0189	.0023	.0107	-.0000	.0004	-.0000
7	57	72.	14.	60.	-0.	0.	0.	.0118	.0022	.0098	.0000	.0003	-.0001
8	70	5.	3.	10.	-0.	-0.	0.	.0035	.0022	.0067	.0000	.0002	-.0001
9	85	-0.	1.	2.	-0.	-0.	0.	-.0001	.0002	.0004	-.0000	.0000	-.0000
10	87	-392.	-1050.	-166.	41955.	-169620.	74384.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	30.	-9.	354.	-0.	-0.	-0.	.0170	-.0050	.2011	-.0000	.0026	.0001
20	175	7.	-5.	195.	0.	-0.	0.	.0170	-.0111	.4510	-.0000	.0034	.0001
21	190	21.	-5.	223.	-0.	0.	-0.	.0657	-.0175	.7066	-.0000	.0016	.0001
22	205	20.	-3.	152.	0.	-0.	-0.	.0914	-.0141	.6904	.0000	.0003	.0002
23	220	41.	-3.	314.	0.	0.	-0.	.0887	-.0066	.6863	-.0000	-.0002	.0002
24	240	29.	-2.	414.	0.	0.	0.	.0474	-.0037	.6867	-.0000	-.0004	.0002
25	255	-142.	15.	1923.	0.	0.	0.	-.0000	.0000	.6869	-.0000	-.0004	.0002



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCDL 1 Z SHOCK
MODE 1 FREQUENCY 1.93

NET PT SEC	NETWORK POINT REACTIONS AND DEFLECTIONS										
	F _X (LB)	F _Y (LB)	F _Z (LB)	R _X (IN-LB)	R _Y (IN-LB)	R _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCDL 1 Z SHOCK
MODE 1 FREQUENCY 1.93

ADLPIPE PAGE 21

DYNAMIC PIPE STRESS ANALYSIS, MODE

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT. MODEL 1 2 SHOCK
2, FREQUENCY 3.72

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 22

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT. MODEL 1 2 SHOCK

ADLPIPE PAGE 22

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCKLOADS
SHOCK

SC	ME	SEQ	POS	MODE FX (LB)	3 FREQUENCY FY (LB)	FZ (LB)	7.61 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-3262.	-131.	-2597.	149444.	-117788.	-187570.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	3262.	131.	2597.	-149367.	116197.	187554.	.0000	.0000	.0000	-.0000	.0000	.0000
1	2	15	END	3262.	131.	2597.	-26727.	-3101.	39526.	.0091	.0056	.0073	-.0002	.0001	.0002
2	1	15	BEG	-3152.	-63.	-2509.	26727.	3101.	-39526.	.0091	.0056	.0073	-.0002	.0001	.0002
2	1	20	END	3152.	63.	2509.	25953.	-3101.	-26667.	.0131	.0056	.0122	-.0002	.0001	.0002
3	1	20	BEG	-2291.	258.	-2224.	-23055.	-29867.	-29177.	.0131	.0056	.0122	-.0002	.0001	.0002
3	1	25	END	2291.	-258.	2224.	102169.	29867.	-52350.	.0199	.0056	.0204	-.0002	.0001	.0002
3	2	30	END	2291.	-258.	2224.	181282.	29867.	-133877.	.0263	.0056	.0279	-.0002	.0001	.0002
4	1	30	BEG	-1802.	362.	-1703.	-181282.	-29867.	133877.	.0263	.0056	.0279	-.0002	.0001	.0002
4	1	35	END	1802.	-362.	1703.	241880.	29867.	-197984.	.0319	.0056	.0344	-.0002	.0001	.0001
4	2	40	END	1802.	-362.	1703.	302478.	29867.	-262090.	.0364	.0056	.0395	-.0001	.0002	.0001
5	1	40	BEG	-1123.	466.	-967.	-302478.	-29867.	262090.	.0364	.0056	.0395	-.0001	.0002	.0001
5	1	45	END	1123.	-466.	967.	336868.	29867.	-302053.	.0394	.0056	.0429	-.0001	.0002	.0001
5	2	50	END	1123.	-466.	967.	371259.	29867.	-342015.	.0407	.0056	.0443	-.0000	.0002	.0000
6	1	50	BEG	24.	624.	283.	-371259.	-29867.	342015.	.0407	.0056	.0443	-.0000	.0002	.0000
6	1	55	END	-24.	-624.	-283.	354258.	29867.	-340595.	.0383	.0056	.0419	.0001	.0002	-.0001
6	2	57	END	-24.	-624.	-283.	335843.	29867.	-339058.	.0312	.0056	.0345	.0001	.0002	-.0001
7	1	57	BEG	2970.	1149.	3545.	-335843.	-29867.	339058.	.0312	.0056	.0345	.0001	.0002	-.0001
7	1	60	END	-2970.	-1149.	-3545.	195392.	29867.	-221371.	.0247	.0055	.0278	.0002	.0002	-.0002
7	2	65	END	-2970.	-1149.	-3545.	54940.	29867.	-103683.	.0166	.0055	.0197	.0002	.0002	-.0002
7	3	70	END	-2970.	-1149.	-3545.	-64329.	29867.	-3745.	.0091	.0055	.0125	.0002	.0002	-.0002
8	1	70	BEG	3189.	1263.	3848.	64329.	-29867.	3745.	.0091	.0055	.0125	.0002	.0002	-.0002
8	1	75	END	-3189.	-1263.	-3848.	-66638.	29867.	-1832.	.0089	.0055	.0124	.0002	.0002	-.0002
8	2	80	END	-3189.	-1263.	-3848.	-233480.	-157966.	199068.	-.0000	.0003	.0005	.0000	.0000	-.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE PAGE 23

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	-3166	-1283	-3848	-233396	-160463	199831	-.0000	.0003	.0005	.0000	.0000	-.0000
9	1	85	BEG	3166	1305	3893	233396	160463	-199831	-.0000	.0003	.0005	.0000	.0000	-.0000
9	1	86	END	-3166	-1305	-3893	-229386	-275884	235246	-.0001	.0006	-.0001	.0000	.0000	-.0000
9	2	87	END	-3166	-1305	-3893	-26951	-275884	69571	.0000	.0000	.0000	.0000	-.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 2 SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-650.	-231.	-88.	-2897.	32968.	55844.	.0131	.0056	.0122	-.0002	.0001	.0002
18	1	160	END	650.	231.	88.	2897.	-35700.	-48720.	.0132	.0013	.0153	-.0002	.0001	.0001
18	2	165	END	650.	231.	88.	2897.	-38432.	-41596.	.0132	-.0005	.0166	-.0002	.0000	.0000
18	3	167	END	650.	231.	88.	2897.	-42007.	-32273.	.0132	-.0009	.0165	-.0002	-.0000	-.0000
19	1	167	BEG	-287.	-255.	364.	-2897.	42007.	32273.	.0132	-.0004	.0165	-.0002	-.0000	-.0000
19	1	170	END	287.	255.	-364.	2897.	-27411.	-22035.	.0132	.0005	.0140	-.0002	-.0001	-.0001
19	2	175	END	287.	255.	-364.	2897.	-12814.	-11797.	.0132	.0038	.0093	-.0002	-.0001	-.0001
20	1	175	BEG	-198.	-230.	426.	-2897.	12814.	11797.	.0132	.0038	.0093	-.0002	-.0001	-.0001
20	1	180	END	198.	230.	-426.	2897.	4281.	-2573.	.0132	.0080	.0034	-.0002	-.0001	-.0001
20	2	185	END	198.	230.	-426.	2897.	12425.	1821.	.0132	.0102	.0007	-.0002	-.0001	-.0001
20	3	190	END	198.	230.	-426.	8353.	17230.	6948.	.0122	.0158	-.0015	-.0001	-.0000	-.0001
21	1	190	BEG	-138.	-152.	419.	-8353.	-17230.	-6948.	.0122	.0158	-.0015	-.0001	-.0000	-.0001
21	1	195	END	138.	152.	-419.	8416.	17182.	6951.	.0122	.0159	-.0015	-.0001	-.0000	-.0001
21	2	200	END	138.	152.	-419.	8481.	17133.	6955.	.0122	.0159	-.0016	-.0001	-.0000	-.0001
21	3	205	END	138.	152.	-419.	12295.	5454.	3986.	.0132	.0169	-.0032	-.0001	.0001	-.0001
22	1	205	BEG	-93.	-94.	408.	-12295.	-5454.	-3986.	.0132	.0169	-.0032	-.0001	.0001	-.0001
22	1	210	END	93.	94.	-408.	12295.	1171.	2975.	.0132	.0161	-.0021	-.0001	.0001	-.0001
22	2	215	END	93.	94.	-408.	12295.	-3112.	1983.	.0132	.0153	-.0051	-.0001	.0001	-.0001
22	3	220	END	93.	94.	-408.	14278.	-13622.	0.	.0143	.0147	-.0067	-.0000	.0000	-.0001
23	1	220	BEG	9.	11.	360.	-14278.	13622.	0.	.0143	.0147	-.0067	-.0000	.0000	-.0001
23	1	225	END	-9.	-11.	-360.	14106.	-13468.	-0.	.0145	.0149	-.0067	-.0000	.0000	-.0001
23	2	230	END	-9.	-11.	-360.	13712.	-13116.	-0.	.0142	.0147	-.0067	.0000	-.0000	-.0001

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 2 SHOCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 25

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT. MODEL 1 2 SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-9.	-11.	-360.	13317.	-12764.	-0.	.0130	.0134	-.0067	.0000	-.0000	-.0001
23	4	240	END	-9.	-11.	-360.	12923.	-12411.	-0.	.0108	.0112	-.0068	.0001	-.0001	-.0001
24	1	240	BEG	111.	115.	297.	-12923.	12411.	0.	.0108	.0112	-.0068	.0001	-.0001	-.0001
24	1	245	END	-111.	-115.	-297.	8616.	-8274.	0.	.0077	.0080	-.0068	.0001	-.0001	-.0001
24	2	250	END	-111.	-115.	-297.	4308.	-4137.	0.	.0040	.0041	-.0068	.0001	-.0001	-.0001
24	3	255	DIS	0.	0.	0.	0.	0.	0.	-.0000	-.0000	-.0068	.0001	-.0001	-.0001
24	3	255	END	-111.	-115.	-297.	-0.	0.	0.	-.0000	-.0000	-.0068	.0001	-.0001	-.0001

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT. MODEL 1 2 SHOCK

ADLPIPE STRESS ANALYSIS

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Z SHOCK
 KCCE 3 FREQUENCY 7.61

NETWORK POINT REACTIONS AND DEFLECTIONS													
NET PT SEQ		F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	O _X (IN)	O _Y (IN)	O _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	-3262.	-131.	-2597.	149444.	-117788.	-187570.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	110.	66.	89.	0.	-0.	-0.	.0091	.0056	.0073	-.0002	.0001	.0002
3	20	211.	90.	197.	0.	-0.	-0.	.0131	.0056	.0122	-.0002	.0001	.0002
4	30	490.	105.	520.	0.	-0.	-0.	.0263	.0056	.0279	-.0002	.0001	.0002
5	40	679.	104.	737.	0.	0.	-0.	.0364	.0056	.0395	-.0001	.0002	.0001
6	50	1147.	156.	1250.	-0.	-0.	-0.	.0407	.0056	.0443	-.0000	.0002	.0000
7	57	2946.	525.	3261.	-0.	0.	0.	.0312	.0056	.0345	.0001	.0002	-.0001
8	70	219.	133.	303.	-0.	-0.	0.	.0091	.0055	.0125	.0002	.0002	-.0002
9	85	-3.	23.	45.	-0.	-0.	0.	-.0000	.0003	.0005	.0000	.0000	-.0000
10	87	-3186.	-1305.	-3893.	-26951.	-275864.	69571.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	363.	-25.	452.	-0.	-0.	-0.	.0132	-.0009	.0165	-.0002	-.0000	-.0000
20	175	89.	25.	62.	-0.	0.	0.	.0132	.0038	.0093	-.0002	-.0001	-.0001
21	190	80.	78.	-8.	0.	0.	0.	.0122	.0158	-.0015	-.0001	-.0000	-.0001
22	205	45.	58.	-11.	-0.	-0.	0.	.0132	.0169	-.0032	-.0001	.0001	-.0001
23	220	102.	105.	-48.	-0.	-0.	0.	.0143	.0147	-.0067	-.0000	.0000	-.0001
24	240	101.	105.	-63.	0.	0.	-0.	.0108	.0112	-.0068	.0001	-.0001	-.0001
25	255	-111.	-115.	-297.	-0.	0.	0.	-.0000	-.0000	-.0068	.0001	-.0001	-.0001

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK
MCCE 3 FREQUENCY 7.61

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS			DX (IN)	DY (IN)	DZ (IN)	BX (RAD)	BY (RAD)	BZ (RAD)
	FX (LB)	FY (LB)	FZ (LB)						

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK

ADLPIPE PAGE 28

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCDEL 1 2 SHOCKLOADS
SHOCK

SC	WE	SEO	POS	MCDE FX (LB)	4 FREQUENCY FY (LB)	FZ (LB)	8.61 MX (IN-LB)	MY (IN-LB)	KZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	3206.	5510.	-2470.	-28226.	82036.	247251.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-3206.	-5510.	2470.	24991.	-79845.	-246564.	-0.0000	-0.0000	.0000	.0000	-0.0000	-0.0000
1	2	15	END	-3206.	-5510.	2470.	-106413.	84398.	-50725.	-0.0071	-0.0002	.0033	-0.0001	-0.0001	-0.0001
2	1	15	BEG	3096.	5507.	-2419.	106413.	-84398.	50725.	-0.0071	-0.0002	.0033	-0.0001	-0.0001	-0.0001
2	1	20	END	-3096.	-5507.	2419.	-55624.	84398.	14298.	-0.0104	-0.0002	.0065	-0.0001	-0.0001	-0.0001
3	1	20	BEG	2123.	5389.	-2138.	63318.	-65778.	36487.	-0.0104	-0.0002	.0065	-0.0001	-0.0001	-0.0001
3	1	25	END	-2123.	-5349.	2138.	12765.	65778.	39035.	-0.0158	-0.0003	.0121	-0.0002	-0.0001	-0.0001
3	2	30	END	-2123.	-5349.	2138.	88848.	65778.	114556.	-0.0211	-0.0004	.0176	-0.0001	-0.0001	-0.0001
4	1	30	BEG	1620.	5339.	-1719.	-88848.	-65778.	-114556.	-0.0211	-0.0004	.0176	-0.0001	-0.0001	-0.0001
4	1	35	END	-1620.	-5339.	1719.	150019.	65778.	172208.	-0.0256	-0.0005	.0226	-0.0001	-0.0000	-0.0001
4	2	40	END	-1620.	-5339.	1719.	211190.	65778.	229860.	-0.0292	-0.0005	.0267	-0.0001	-0.0000	-0.0001
5	1	40	BEG	924.	5326.	-1083.	-211190.	-65778.	-229860.	-0.0292	-0.0005	.0267	-0.0001	-0.0000	-0.0001
5	1	45	END	-924.	-5326.	1083.	249715.	65778.	262737.	-0.0314	-0.0006	.0296	-0.0001	-0.0000	-0.0000
5	2	50	END	-924.	-5326.	1083.	288241.	65778.	295614.	-0.0322	-0.0007	.0311	-0.0000	.0000	.0000
6	1	50	BEG	-237.	5301.	38.	-288241.	-65778.	-295614.	-0.0322	-0.0007	.0311	-0.0000	.0000	.0000
6	1	55	END	237.	-5301.	-38.	285939.	65778.	281372.	-0.0295	-0.0008	.0297	.0001	.0000	.0001
6	2	57	END	237.	-5301.	-38.	283445.	65778.	265944.	-0.0229	-0.0009	.0245	.0001	.0000	.0001
7	1	57	BEG	-3012.	5192.	3003.	-283445.	-65778.	-265944.	-0.0229	-0.0009	.0245	.0001	.0000	.0001
7	1	60	END	3012.	-5192.	-3003.	164466.	65778.	146604.	-0.0172	-0.0010	.0195	.0001	.0001	.0002
7	2	65	END	3012.	-5192.	-3003.	45488.	65778.	27265.	-0.0104	-0.0011	.0133	.0002	.0001	.0002
7	3	70	END	3012.	-5192.	-3003.	-55547.	65778.	-74077.	-0.0044	-0.0011	.0077	.0002	.0001	.0002
8	1	70	BEG	-3147.	5156.	3241.	55547.	-65778.	74077.	-0.0044	-0.0011	.0077	.0002	.0001	.0002
8	1	75	END	3147.	-5156.	-3241.	-57491.	65778.	-75965.	-0.0043	-0.0011	.0076	.0002	.0001	.0002
8	2	80	END	3147.	-5156.	-3241.	-177923.	-63675.	13045.	-0.0004	.0004	.0003	.0000	.0000	-0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MCDEL 1 2 SHOCK

ADLPIPE PAGE 29

ARTHUR O. LITTLE INC.
NINE MILE POWER STAT MGDEL 1 Z SHGCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	3147.	-5156.	-3241.	-177586.	-65396.	16110.	-.0004	.0004	.0003	.0000	.0000	-.0000
9	1	85	BEG	-3186.	5199.	3274.	177586.	65396.	-16110.	-.0004	.0004	.0003	.0000	.0000	-.0000
9	1	86	END	3166.	-5199.	-3274.	-161613.	-144434.	157180.	-.0004	.0000	-.0000	.0000	.0000	-.0000
9	2	87	END	3166.	-5199.	-3274.	8615.	-144434.	322859.	.0000	.0000	.0000	.0000	.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

SC	ME	SEG	POS	PX (LB)	EY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	761.	154.	-147.	-7694.	-18620.	-50785.	-.0104	-.0002	.0065	-.0001	-.0001	-.0001
18	1	160	END	-761.	-154.	147.	7694.	18620.	50785.	-.0104	.0031	.0045	-.0001	-.0001	-.0001
18	2	165	END	-761.	-154.	147.	7694.	-9537.	41289.	-.0104	.0040	.0031	-.0001	-.0000	.0000
18	3	167	END	-761.	-154.	147.	7694.	3594.	35076.	-.0104	.0033	.0019	-.0001	-.0000	.0000
19	1	167	BEG	394.	271.	-81.	-7694.	-3594.	-35076.	-.0104	.0033	.0019	-.0001	-.0000	.0000
19	1	170	END	-394.	-271.	81.	7694.	333.	24190.	-.0105	.0007	.0008	-.0001	-.0000	.0001
19	2	175	END	-394.	-271.	81.	7694.	-2928.	13305.	-.0105	-.0040	-.0002	-.0001	-.0000	.0001
20	1	175	BEG	303.	237.	-83.	-7694.	2928.	-13305.	-.0105	-.0040	-.0002	-.0001	-.0000	.0001
20	1	180	END	-303.	-237.	83.	7694.	-6270.	3787.	-.0105	-.0098	-.0015	-.0000	-.0000	.0002
20	2	185	END	-303.	-237.	83.	7694.	-7862.	-746.	-.0105	-.0127	-.0023	-.0000	-.0000	.0002
20	3	190	END	-303.	-237.	83.	2598.	-3258.	-6184.	-.0125	-.0154	-.0038	-.0000	-.0001	.0001
21	1	190	BEG	225.	140.	-107.	-2598.	3258.	6184.	-.0125	-.0154	-.0038	-.0000	-.0001	.0001
21	1	195	END	-225.	-140.	107.	2547.	-3179.	-6189.	-.0125	-.0154	-.0038	-.0000	-.0001	.0001
21	2	200	END	-225.	-140.	107.	2495.	-3100.	-6195.	-.0125	-.0154	-.0038	-.0000	-.0001	.0001
21	3	205	END	-225.	-140.	107.	-602.	3859.	-3589.	-.0148	-.0125	-.0017	-.0000	-.0001	.0001
22	1	205	BEG	160.	85.	-114.	602.	-3859.	3589.	-.0148	-.0125	-.0017	-.0000	-.0001	.0001
22	1	210	END	-160.	-85.	114.	-602.	5061.	-2691.	-.0149	-.0112	-.0008	-.0000	-.0001	.0001
22	2	215	END	-160.	-85.	114.	-602.	6262.	-1784.	-.0149	-.0100	.0001	-.0000	-.0001	.0001
22	3	220	END	-160.	-85.	114.	-2396.	12024.	-0.	-.0158	-.0075	.0015	-.0000	-.0000	.0001
23	1	220	BEG	16.	17.	-101.	2396.	-12024.	-0.	-.0158	-.0075	.0015	-.0000	-.0000	.0001
23	1	225	END	-16.	-17.	101.	-2677.	12886.	0.	-.0159	-.0073	.0015	-.0000	-.0000	.0001
23	2	230	END	-16.	-17.	101.	-3318.	12887.	0.	-.0155	-.0067	.0015	-.0000	.0000	.0001

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 31

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

SC	WE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-16.	-17.	101.	-3959.	13487.	0.	-.0141	-.0059	.0015	-.0000	.0000	.0001
23	4	240	END	-16.	-17.	101.	-4600.	14088.	0.	-.0118	-.0048	.0015	-.0000	.0001	.0001
24	1	240	BEG	-126.	-41.	-83.	4600.	-14088.	-0.	-.0118	-.0048	.0015	-.0000	.0001	.0001
24	1	245	END	126.	41.	83.	-3066.	9392.	0.	-.0084	-.0034	.0015	-.0000	.0001	.0001
24	2	250	END	126.	41.	83.	-1533.	4696.	0.	-.0044	-.0018	.0015	-.0000	.0001	.0001
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	.0000	.0015	-.0000	.0001	.0001
24	3	255	END	126.	41.	83.	-0.	-0.	0.	.0000	.0000	.0015	-.0000	.0001	.0001

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Z SHOCK
 MCCE 4 FREQUENCY 8.61

NETWORK POINT REACTIONS AND DEFLECTIONS													
NET PT	SEG	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	3206.	5510.	-2470.	-28226.	82036.	247251.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	-110.	-3.	51.	0.	0.	0.	-.0071	-.0002	.0033	-.0001	-.0001	-.0001
3	20	-213.	-5.	133.	0.	0.	0.	-.0104	-.0002	.0065	-.0001	-.0001	-.0001
4	30	-502.	-9.	419.	0.	-0.	0.	-.0211	-.0004	.0176	-.0001	-.0001	-.0001
5	40	-696.	-13.	636.	0.	0.	0.	-.0292	-.0005	.0267	-.0001	-.0000	-.0001
6	50	-1161.	-25.	1121.	0.	-0.	-0.	-.0322	-.0007	.0311	-.0000	.0000	.0000
7	57	-2774.	-109.	2964.	-0.	0.	-0.	-.0229	-.0009	.0245	.0001	.0000	.0001
8	70	-136.	-35.	238.	-0.	-0.	-0.	-.0044	-.0011	.0077	.0002	.0001	.0002
9	85	-39.	43.	33.	-0.	-0.	0.	-.0004	.0004	.0003	.0000	.0000	-.0000
10	87	3186.	-5199.	3274.	8615.	-144234.	322859.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	-387.	118.	66.	-0.	0.	0.	-.0104	.0033	.0019	-.0001	-.0000	.0000
20	175	-90.	-34.	-2.	0.	0.	-0.	-.0105	-.0020	-.0002	-.0001	-.0000	.0001
21	190	-78.	-97.	-24.	-0.	-0.	-0.	-.0125	-.0153	-.0038	-.0000	-.0001	.0001
22	205	-65.	-55.	-7.	0.	0.	-0.	-.0148	-.0125	-.0017	-.0000	-.0001	.0001
23	220	-124.	-68.	13.	0.	0.	-0.	-.0158	-.0075	.0015	-.0000	-.0000	.0001
24	240	-142.	-58.	18.	0.	-0.	0.	-.0118	-.0048	.0015	-.0000	.0001	.0001
25	255	126.	41.	83.	-0.	-0.	0.	.0000	.0000	.0015	-.0000	.0001	.0001

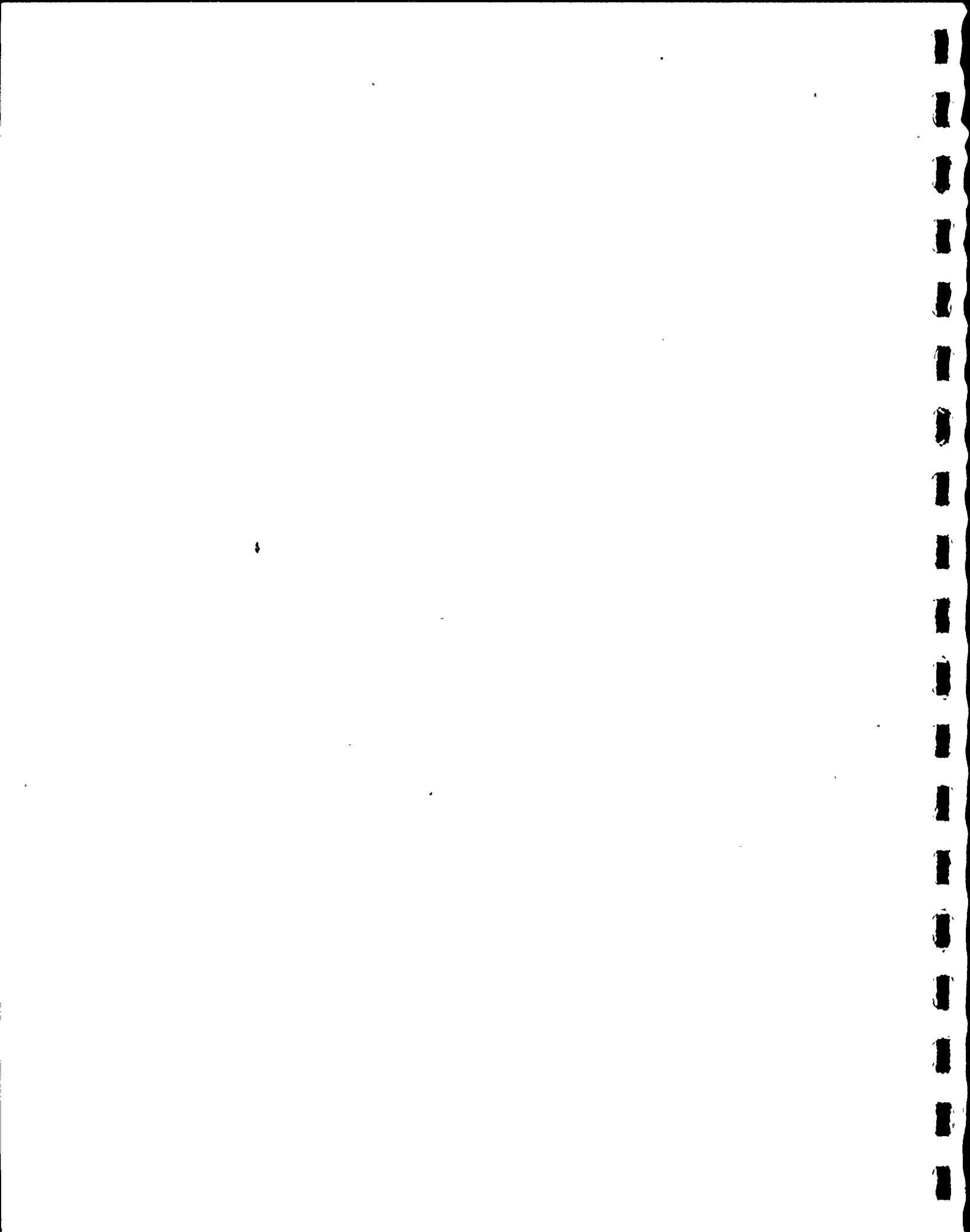
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK
PCDE 4 FREQUENCY 8.61

NET PT SEG	NETWORK POINT REACTIONS AND DEFLECTIONS									RX (RAD)	RY (RAD)	RZ (RAD)
	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)			

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK



LOADS
SHOCK

SC	HE	SEQ	POS	MODE FX (LB)	5 FREQUENCY FY (LB)	FZ (LB)	11.59 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-39.	39.	-12.	-822.	-2481.	327.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	39.	-39.	12.	799.	2459.	-322.	.0000	-.0000	-.0000	.0000	.0000	-.0000
1	2	15	END	39.	-39.	12.	-359.	846.	-1726.	.0001	-.0000	-.0000	.0000	.0000	-.0000
2	1	15	BEG	-38.	38.	-13.	359.	-846.	1726.	.0001	-.0000	-.0000	.0000	.0000	-.0000
2	1	20	END	38.	-38.	13.	-89.	846.	-2517.	.0000	-.0000	-.0000	.0000	.0000	-.0000
3	1	20	BEG	27.	37.	0.	158.	552.	2672.	.0000	-.0000	-.0000	.0000	.0000	-.0000
3	1	25	END	-27.	-37.	-0.	-169.	-552.	-1714.	.0000	-.0000	-.0000	-.0000	.0000	-.0000
3	2	30	END	-27.	-37.	-0.	-181.	-552.	-756.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000
4	1	30	BEG	26.	36.	-1.	181.	552.	756.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000
4	1	35	END	-26.	-36.	1.	-160.	-552.	157.	-.0001	-.0000	-.0000	-.0000	.0000	-.0000
4	2	40	END	-26.	-36.	1.	-139.	-552.	1071.	-.0001	-.0000	-.0000	-.0000	.0000	-.0000
5	1	40	BEG	20.	35.	-1.	139.	552.	-1071.	-.0001	-.0000	-.0000	-.0000	.0000	-.0000
5	1	45	END	-20.	-35.	1.	-94.	-552.	1796.	-.0002	-.0000	-.0000	-.0000	.0000	-.0000
5	2	50	END	-20.	-35.	1.	-46.	-552.	2521.	-.0002	-.0000	-.0000	-.0000	.0000	-.0000
6	1	50	BEG	8.	34.	-2.	48.	552.	-2521.	-.0002	-.0000	-.0000	-.0000	.0000	-.0000
6	1	55	END	-8.	-34.	2.	62.	-552.	2991.	-.0002	-.0000	-.0000	-.0000	.0000	.0000
6	2	57	END	-8.	-34.	2.	180.	-552.	3500.	-.0002	-.0000	.0000	-.0000	.0000	.0000
7	1	57	BEG	33.	30.	-0.	-180.	552.	-3500.	-.0002	-.0000	.0000	-.0000	.0000	.0000
7	1	60	END	33.	-30.	0.	193.	-552.	2202.	-.0001	-.0000	.0000	-.0000	.0000	.0000
7	2	65	END	33.	-30.	0.	205.	-552.	904.	-.0001	-.0000	.0000	-.0000	.0000	.0000
7	3	70	END	33.	-30.	0.	215.	-552.	-198.	-.0000	-.0000	.0000	-.0000	.0000	.0000
8	1	70	BEG	-35.	29.	0.	-215.	552.	198.	-.0000	-.0000	.0000	-.0000	.0000	.0000
8	1	75	END	35.	-29.	-0.	215.	-552.	-219.	-.0000	-.0000	.0000	-.0000	.0000	.0000
8	2	80	END	35.	-29.	-0.	340.	-396.	-504.	-.0000	.0000	.0000	-.0000	.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT
MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
8	3	85	END	35.	-29.	-0.	342.	-394.	-487.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	85	BEG	-36.	30.	1.	-342.	394.	487.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	86	END	36.	-30.	-1.	433.	-302.	317.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	2	87	END	36.	-30.	-1.	468.	-302.	2183.	0.0000	.0000	-.0000	-.0000	-.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT
MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 2 SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-63.	1.	-14.	-69.	-1397.	-156.	.0000	-.0000	-.0000	.0000	.0000	-.0000
18	1	160	END	63.	-1.	14.	69.	965.	112.	.0000	.0000	.0001	.0000	.0000	-.0000
18	2	165	END	63.	-1.	14.	69.	532.	66.	.0001	.0000	.0002	.0000	.0000	-.0000
18	3	167	END	63.	-1.	14.	69.	-33.	10.	.0001	.0000	.0004	.0000	.0000	-.0000
19	1	167	BEG	-59.	3.	12.	-69.	33.	-10.	.0001	.0000	.0004	.0000	.0000	-.0000
19	1	170	END	59.	-3.	-12.	69.	458.	-118.	.0001	.0000	.0006	.0000	.0000	-.0000
19	2	175	END	59.	-3.	-12.	69.	950.	-246.	.0001	.0001	.0009	.0000	.0000	-.0000
20	1	175	BEG	-59.	4.	26.	-69.	-950.	246.	.0001	.0001	.0009	.0000	.0000	-.0000
20	1	180	END	59.	-4.	-26.	69.	1984.	-413.	.0001	.0001	.0012	.0000	.0000	-.0000
20	2	185	END	59.	-4.	-26.	69.	2477.	-492.	.0001	.0001	.0014	.0000	.0000	-.0000
20	3	190	END	59.	-4.	-26.	20.	1792.	-492.	.0006	.0002	.0018	.0000	.0000	-.0000
21	1	190	BEG	-52.	6.	47.	-20.	-1792.	492.	.0006	.0002	.0018	.0000	.0000	-.0000
21	1	195	END	52.	-6.	-47.	19.	1774.	-491.	.0006	.0002	.0018	.0000	.0000	-.0000
21	2	200	END	52.	-6.	-47.	18.	1756.	-489.	.0006	.0002	.0018	.0000	.0000	-.0000
21	3	205	END	52.	-6.	-47.	-45.	-307.	-279.	.0014	.0000	.0010	.0000	.0000	-.0000
22	1	205	BEG	-41.	7.	55.	45.	307.	279.	.0014	.0000	.0010	.0000	.0000	-.0000
22	1	210	END	41.	-7.	-55.	-45.	-884.	-209.	.0014	-.0000	.0007	.0000	.0000	-.0000
22	2	215	END	41.	-7.	-55.	-45.	-1461.	-140.	.0014	-.0001	.0003	.0000	.0000	-.0000
22	3	220	END	41.	-7.	-55.	-164.	-3471.	0.	.0019	-.0003	-.0004	.0000	.0000	-.0000
23	1	220	BEG	-9.	2.	49.	164.	3471.	0.	.0019	-.0003	-.0004	.0000	.0000	-.0000
23	1	225	END	9.	-2.	-49.	-215.	-3621.	-0.	.0022	-.0003	-.0004	.0000	.0000	-.0000
23	2	230	END	9.	-2.	-49.	-283.	-3964.	-0.	.0025	-.0003	-.0004	-.0000	.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 2 SHOCK

ADLPIPE STRESS ANALYSIS

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ARTHUR D. LITTLE INC.
NINE MILE POWER STATADLPIPE STRESS ANALYSIS
MODEL 1 Z SHOCK

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	9.	-2.	-49.	-352.	-4307.	-0.	.0026	-.0003	-.0004	-.0000	-.0000	-.0000
23	4	240	END	9.	-2.	-49.	-421.	-4650.	-0.	.0023	-.0003	-.0004	-.0000	-.0000	-.0000
24	1	240	BEG	41.	-4.	40.	421.	4650.	0.	.0023	-.0003	-.0004	-.0000	-.0000	-.0000
24	1	245	END	-41.	4.	-40.	-281.	-3100.	0.	.0017	-.0002	-.0004	-.0000	-.0000	-.0000
24	2	250	END	-41.	4.	-40.	-140.	-1550.	0.	.0009	-.0001	-.0004	-.0000	-.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	.0000	-.0004	-.0000	-.0000	-.0000
24	3	255	END	-41.	4.	-40.	0.	0.	0.	0.0000	.0000	-.0004	-.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STATADLPIPE STRESS ANALYSIS
MODEL 1 Z SHOCK

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Z SHOCK
 MOCE 5 FREQUENCY 11.59

NET PT SEC			NETWORK POINT REACTIONS AND DEFLECTIONS											
			F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5		-39.	39.	-12.	-622.	-2481.	327.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		2.	-0.	-1.	-0.	-0.	0.	.0001	-0.0000	-0.0000	.0000	.0000	-0.0000
3	20		2.	-0.	-1.	0.	-0.	0.	.0000	-0.0000	-0.0000	.0000	.0000	-0.0000
4	30		-1.	-1.	-1.	0.	-0.	0.	-0.0000	-0.0000	-0.0000	-0.0000	.0000	-0.0000
5	40		-5.	-1.	-1.	0.	0.	0.	-0.0001	-0.0000	-0.0000	-0.0000	.0000	-0.0000
6	50		-13.	-1.	-1.	0.	-0.	0.	-0.0002	-0.0000	-0.0000	-0.0000	.0000	-0.0000
7	57		-41.	-4.	2.	0.	0.	-0.	-0.0002	-0.0000	.0000	-0.0000	.0000	.0000
8	70		-3.	-1.	1.	-0.	-0.	-0.	-0.0000	-0.0000	.0000	-0.0000	.0000	.0000
9	85		-0.	0.	0.	0.	-0.	0.	-0.0000	.0000	.0000	-0.0000	.0000	-0.0000
10	87		36.	-30.	-1.	468.	-302.	2183.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167		3.	2.	26.	0.	-0.	0.	.0001	.0000	.0004	.0000	.0000	-0.0000
20	175		1.	1.	14.	0.	-0.	0.	.0001	.0001	.0009	.0000	.0000	-0.0000
21	190		7.	2.	21.	0.	-0.	0.	.0006	.0002	.0018	.0000	.0000	-0.0000
22	205		11.	0.	8.	-0.	-0.	0.	.0014	.0000	.0010	.0000	.0000	-0.0000
23	220		32.	-5.	-6.	-0.	-0.	0.	.0019	-0.0003	-0.0004	.0000	.0000	-0.0000
24	240		51.	-6.	-9.	0.	-0.	-0.	.0023	-0.0003	-0.0004	-0.0000	-0.0000	-0.0000
25	255		-41.	4.	-40.	0.	0.	0.	0.0000	.0000	-0.0004	-0.0000	-0.0000	-0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK
MODE 5 FREQUENCY 11.59

NET PT SEG	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	PZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK
MODE 5 FREQUENCY 11.59

ADLPIPE PAGE 40

DYNAMIC PIPE STRESS ANALYSIS, NODE

ARTHUR D. LITTLE INC, ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT. MODEL 1 Z SHOCK
6, FREQUENCY 13.07

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC, ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT. MODEL 1 Z SHOCK

ADLPIPE PAGE 41

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCKLOADS
SHOCK

SC	ME	SEQ	POS	MODE FX (LB)	7 FREQUENCY FY (LB)	FZ (LB)	13.84 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	2	15	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	15	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	20	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	25	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	2	30	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	30	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	35	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	2	40	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	40	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	45	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2	50	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	50	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	55	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	2	57	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	57	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	60	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	2	65	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	3	70	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	70	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	75	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	2	80	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK

ADLPIPE PAGE 42

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEO	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
8	3	85	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	85	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	86	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	2	87	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	87	BEG	-1742.	-525.	-2505.	-111866.	213354.	46366.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	1742.	525.	2505.	114786.	-144355.	-62847.	-0.0000	-0.0000	.0001	.0000	-.0000	-.0000
10	2	90	END	1742.	525.	2505.	99604.	-80925.	-65631.	.0002	.0001	.0002	.0000	-.0000	-.0000
11	1	90	BEG	-1696.	-496.	-2471.	-99604.	80925.	65631.	.0002	.0001	.0002	.0000	-.0000	-.0000
11	1	95	END	1696.	496.	2471.	99315.	-79679.	-65682.	.0002	.0001	.0002	.0000	-.0000	-.0000
11	2	100	END	1696.	496.	2471.	-33805.	15147.	6675.	.0041	.0027	.0046	.0001	-.0001	-.0000
12	1	100	BEG	-1242.	-189.	-1960.	33805.	-15147.	-6675.	.0041	.0027	.0046	.0001	-.0001	-.0000
12	1	105	END	1242.	189.	1960.	-63203.	15147.	25303.	.0047	.0027	.0060	.0001	-.0001	-.0000
12	2	107	END	1242.	189.	1960.	-170986.	15147.	93600.	.0066	.0027	.0106	.0001	-.0001	-.0000
13	1	107	BEG	-226.	221.	-382.	170986.	-15147.	-93600.	.0068	.0027	.0106	.0001	-.0001	-.0000
13	1	110	END	226.	-221.	382.	-164537.	15147.	101619.	.0077	.0027	.0127	.0000	-.0001	-.0000
13	2	115	END	226.	-221.	382.	-198089.	15147.	109637.	.0080	.0027	.0138	.0000	-.0001	-.0000
14	1	115	BEG	267.	389.	465.	198089.	-15147.	-109637.	.0060	.0027	.0136	.0000	-.0001	-.0000
14	1	120	END	-267.	-389.	-465.	-181589.	15147.	100177.	.0077	.0027	.0137	-.0000	-.0001	.0000
14	2	125	END	-267.	-389.	-465.	-165090.	15147.	90718.	.0068	.0027	.0127	-.0000	-.0001	.0000
15	1	125	BEG	760.	586.	1379.	165090.	-15147.	-90718.	.0068	.0027	.0127	-.0000	-.0001	.0000
15	1	130	END	-760.	-586.	-1379.	-98886.	15147.	54235.	.0048	.0027	.0097	-.0001	-.0001	.0000
15	2	135	END	-760.	-586.	-1379.	-32683.	15147.	17752.	.0022	.0027	.0057	-.0001	-.0000	.0001
16	1	135	BEG	923.	784.	1795.	32683.	-15147.	-17752.	.0022	.0027	.0057	-.0001	-.0000	.0001
16	1	140	END	-923.	-784.	-1795.	-9627.	15147.	5893.	.0015	.0027	.0045	-.0001	-.0000	.0001
16	2	145	END	-923.	-784.	-1795.	84477.	46166.	-56058.	-.0001	.0004	.0003	-.0000	-.0000	.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 Z SHCCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	OX (IN)	OY (IN)	OZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	-923.	-784.	-1795.	85049.	46739.	-56603.	-.0001	.0005	.0003	-.0000	-.0000	.0000
17	1	150	BEG	920.	805.	1510.	-85049.	-46739.	56603.	-.0001	.0004	.0003	-.0000	-.0000	.0000
17	1	155	END	-920.	-805.	-1810.	117166.	78807.	-87192.	.0000	-.0000	-.0000	-.0000	-.0000	-.0000
18	1	20	SEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	160	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	2	165	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	3	167	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	167	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	170	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	2	175	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	175	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	180	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	2	185	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	3	190	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	190	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	195	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	2	200	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	3	205	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	205	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	210	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	2	215	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	3	220	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	220	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	225	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	2	230	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
23	3	235	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	4	240	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	240	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	245	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	2	250	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NET PT	SEC	NETWORK POINT REACTIONS AND DEFLECTIONS											
		FX (LB)	FY (LB)	FZ (LB)	KX (IN-LB)	KY (IN-LB)	KZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	20	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	30	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	40	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	50	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	57	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	70	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	85	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	87	-1742.	-525.	-2505.	-111806.	213354.	46366.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	46.	29.	35.	0.	0.	0.	.0002	.0001	.0002	.0000	-.0000	-.0000
12	100	454.	306.	511.	-0.	0.	0.	.0041	.0027	.0046	.0001	-.0001	-.0000
13	107	1016.	410.	1578.	-0.	-0.	0.	.0068	.0027	.0106	.0001	-.0001	-.0000
14	115	493.	168.	847.	-0.	0.	0.	.0080	.0027	.0138	.0000	-.0001	-.0000
15	125	493.	197.	914.	0.	-0.	-0.	.0068	.0027	.0127	-.0000	-.0001	.0000
16	135	183.	198.	416.	0.	-0.	0.	.0022	.0027	.0057	-.0001	-.0000	.0001
17	150	-3.	21.	15.	0.	0.	-0.	-.0001	.0002	.0003	-.0000	-.0000	.0000
18	155	-920.	-805.	-1810.	117166.	78807.	-87192.	.0000	-.0000	-.0000	-.0000	-.0000	-.0000
19	167	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	175	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	190	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	205	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	220	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	240	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	255	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK
MODE 7 FREQUENCY 13.64

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK

ADLPIPE PAGE 47

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MGDEL 1 2 SHOCKLOADS
SHOCK

SC	ME	SEQ	POS	CODE FX (LB)	8 FREQUENCY FY (LB)	FZ (LB)	15.60 HX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	2	15	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	15	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	20	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	25	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	2	30	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	30	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1	35	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	2	40	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	40	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	1	45	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2	50	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	50	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	1	55	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	2	57	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	57	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	1	60	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	2	65	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	3	70	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	70	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	1	75	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	2	80	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MGDEL 1 2 SHOCK

ADLPIPE PAGE 48

ARTHUR D. LITTLE INC.
NINE MILE POKER STAT MCDEL 1 2 SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	85	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	1	86	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	2	87	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	87	BEG	1464.	992.	-753.	28071.	-40065.	-17729.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	-1464.	-992.	753.	-33699.	72078.	48952.	.0000	.0000	-.0000	-.0000	.0000	.0000
10	2	90	END	-1464.	-992.	753.	-5022.	33666.	54117.	-.0001	-.0000	-.0000	-.0000	.0000	.0000
11	1	90	BEG	1440.	981.	-761.	5022.	-33666.	-54117.	-.0001	-.0000	-.0000	-.0000	.0000	.0000
11	1	95	END	-1440.	-981.	761.	-4451.	32908.	54220.	-.0001	-.0000	-.0000	-.0000	.0000	.0000
11	2	100	END	-1440.	-981.	761.	4762.	-24785.	-2743.	-.0024	.0004	.0006	.0000	.0000	.0000
12	1	100	BEG	1099.	1037.	-677.	-4762.	24785.	2743.	-.0024	.0004	.0006	.0000	.0000	.0000
12	1	105	END	-1099.	-1037.	677.	-5393.	-24785.	-19233.	-.0030	.0004	.0010	.0000	.0000	.0000
12	2	107	END	-1099.	-1037.	677.	-42625.	-24785.	-79696.	-.0049	.0004	.0025	.0000	.0000	.0000
13	1	107	BEG	173.	1109.	-205.	42625.	24785.	79696.	-.0049	.0004	.0025	.0000	.0000	.0000
13	1	110	END	-173.	-1109.	205.	-49885.	-24785.	-85841.	-.0057	.0004	.0032	.0000	.0000	.0000
13	2	115	END	-173.	-1109.	205.	-57146.	-24785.	-91985.	-.0061	.0003	.0037	.0000	.0000	.0000
14	1	115	BEG	-301.	1136.	84.	57146.	24785.	91985.	-.0061	.0003	.0037	.0000	.0000	.0000
14	1	120	END	301.	-1136.	-84.	-54168.	-24785.	-81303.	-.0059	.0003	.0038	-.0000	.0000	-.0000
14	2	125	END	301.	-1136.	-84.	-51190.	-24785.	-70620.	-.0053	.0003	.0036	-.0000	-.0000	-.0000
15	1	125	BEG	-784.	1164.	419.	51190.	24785.	70620.	-.0053	.0003	.0036	-.0000	-.0000	-.0000
15	1	130	END	784.	-1164.	-419.	-31071.	-24785.	-33009.	-.0037	.0003	.0029	-.0000	-.0000	-.0000
15	2	135	END	784.	-1164.	-419.	-10953.	-24785.	4602.	-.0019	.0003	.0019	-.0000	-.0000	-.0000
16	1	135	BEG	-959.	1189.	597.	10953.	24785.	-4602.	-.0019	.0003	.0019	-.0000	-.0000	-.0000
16	1	140	END	959.	-1189.	-597.	-3287.	-24785.	16924.	-.0014	.0003	.0016	-.0000	-.0000	-.0000
16	2	145	END	959.	-1189.	-597.	46621.	10922.	25905.	-.0001	.0002	.0002	-.0000	-.0000	-.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	956.	-1189.	-597.	47155.	11582.	25539.	-0.0001	.0002	.0002	-0.0000	-0.0000	-0.0000
17	1	150	BEG	-966.	1200.	609.	-47155.	-11582.	-25539.	-0.0001	.0002	.0002	-0.0000	-0.0000	-0.0000
17	1	155	END	966.	-1200.	-609.	76930.	48415.	193.	-0.0000	.0000	-0.0000	.0000	-0.0000	.0000
18	1	20	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	160	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	2	165	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	3	167	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	167	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	1	170	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	2	175	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	175	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	1	180	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	2	185	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	3	190	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	190	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	1	195	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	2	200	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	3	205	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	205	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	1	210	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	2	215	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	3	220	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	220	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	1	225	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	2	230	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 50

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT

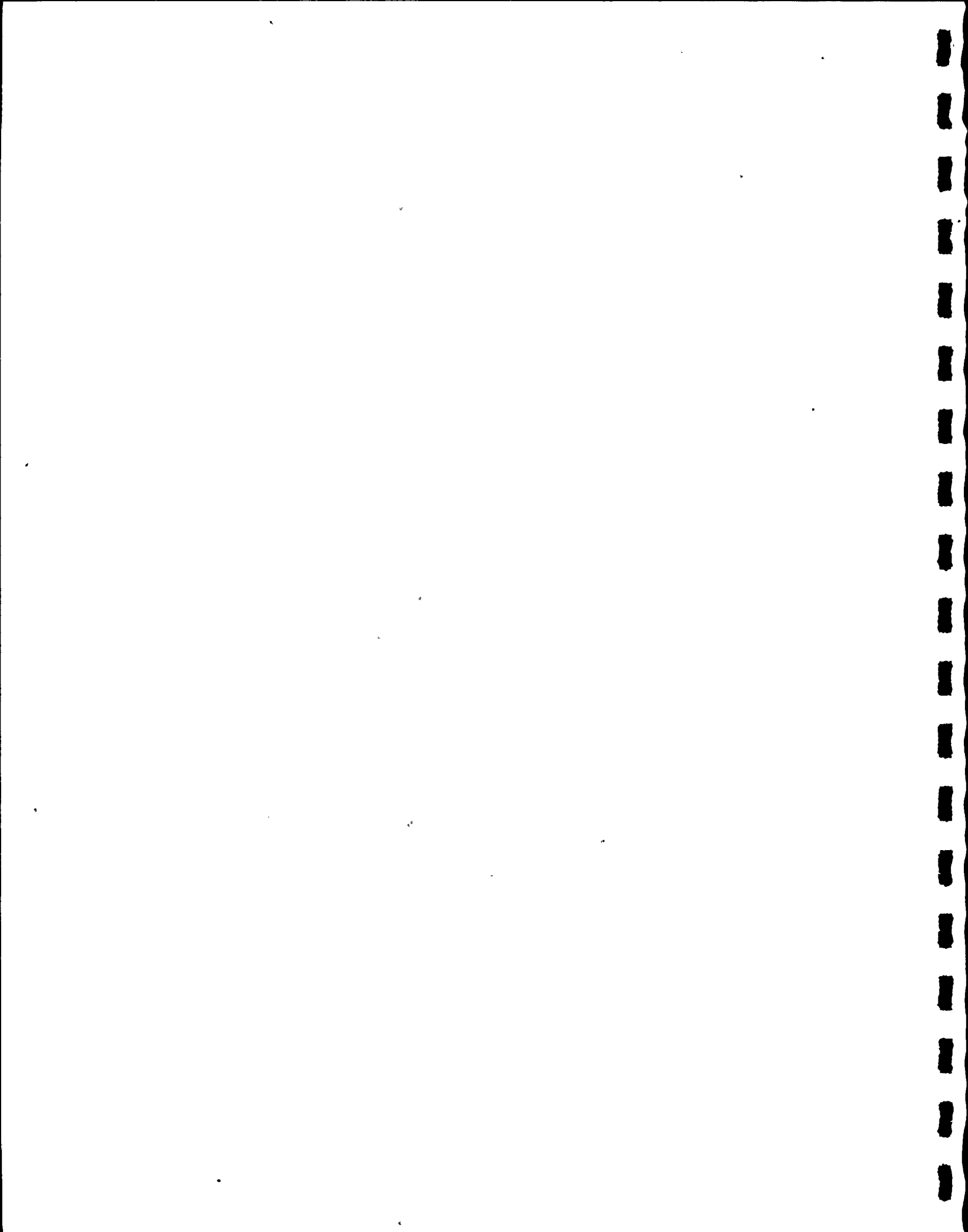
ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 50

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MCDEL 1 2 SHOCK

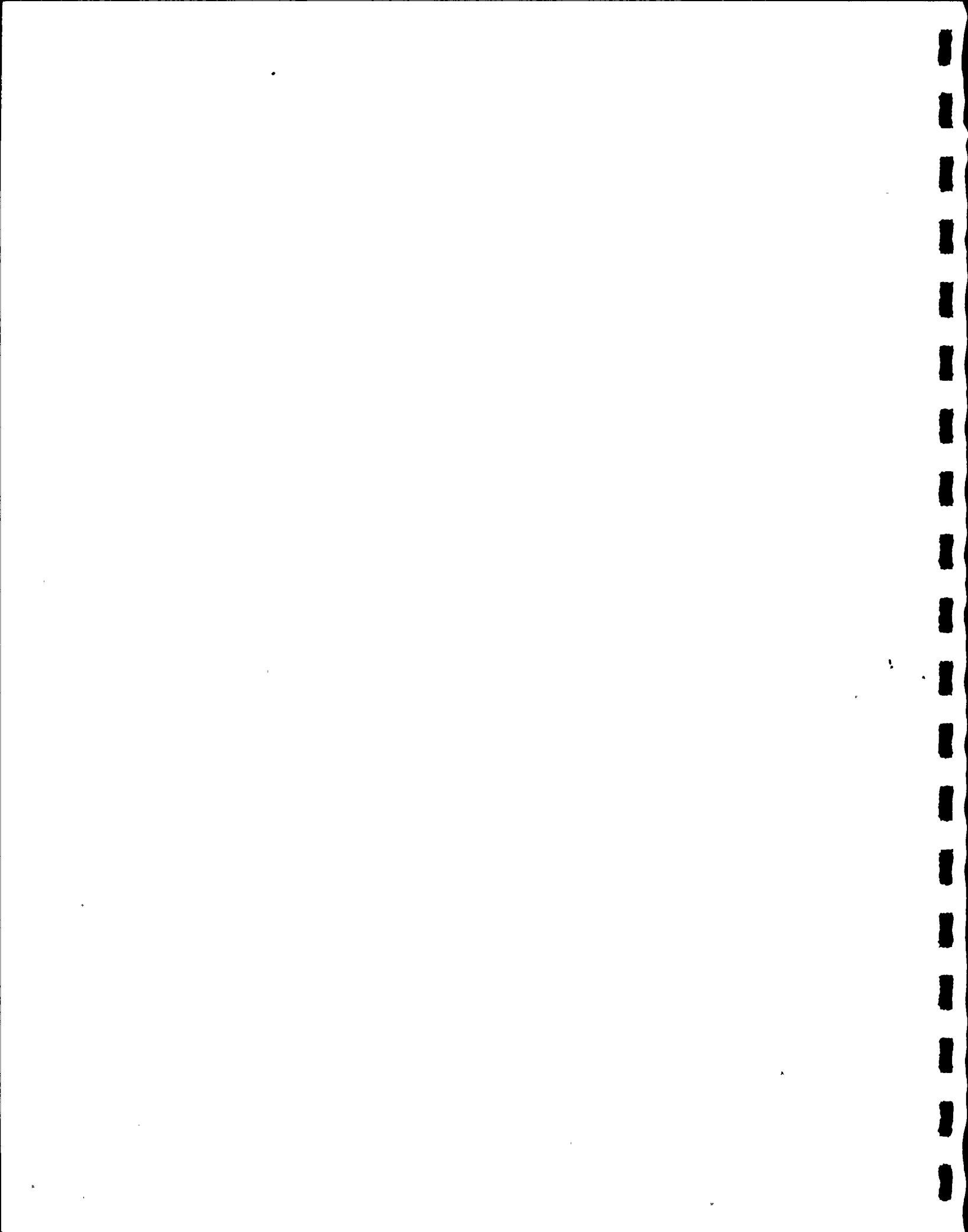
ADLPIPE STRESS ANALYSIS

SC	WE	SED	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	H _Y (IN-LB)	K _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
23	3	235	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	4	240	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	240	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	1	245	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	2	250	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	3	255	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Z SHECK
 MODE 8 FREQUENCY 15.60

NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		F _X (LB)	F _Y (LB)	F _Z (LB)	H _X (IN-LB)	M _Y (IN-LB)	H _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	20	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	30	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	40	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	50	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	57	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	70	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	85	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	87	1464.	992.	-753.	28071.	-40065.	-17729.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	-24.	-10.	-8.	0.	-0.	-0.	-.0001	-.0000	-.0000	-.0000	.0000	.0000
12	100	-340.	56.	84.	-0.	-0.	-0.	-.0024	.0004	.0006	.0000	.0000	.0000
13	107	-926.	72.	472.	-0.	0.	-0.	-.0049	.0004	.0025	.0000	.0000	.0000
14	115	-475.	27.	289.	-0.	0.	-0.	-.0061	.0003	.0037	.0000	.0000	.0000
15	125	-482.	29.	335.	0.	-0.	0.	-.0053	.0003	.0036	-.0000	-.0000	-.0000
16	135	-176.	25.	178.	-0.	-0.	0.	-.0019	.0003	.0019	-.0000	-.0000	-.0000
17	150	-6.	10.	12.	0.	0.	-0.	-.0001	.0002	.0002	-.0000	-.0000	-.0000
18	155	966.	-1200.	-609.	76930.	48415.	193.	-.0000	.0000	-.0000	.0000	-.0000	.0000
19	167	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	175	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	190	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	205	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
23	220	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
24	240	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
25	255	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



ADLPIPE PAGE 52

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK
MODE 8 FREQUENCY 15.60

NET PT SEC

F_X
(LB)

F_Y
(LB)

F_Z
(LB)

NETWORK POINT REACTIONS AND DEFLECTIONS

H_X
(IN-LB)

H_Y
(IN-LB)

H_Z
(IN-LB)

D_X
(IN)

D_Y
(IN)

D_Z
(IN)

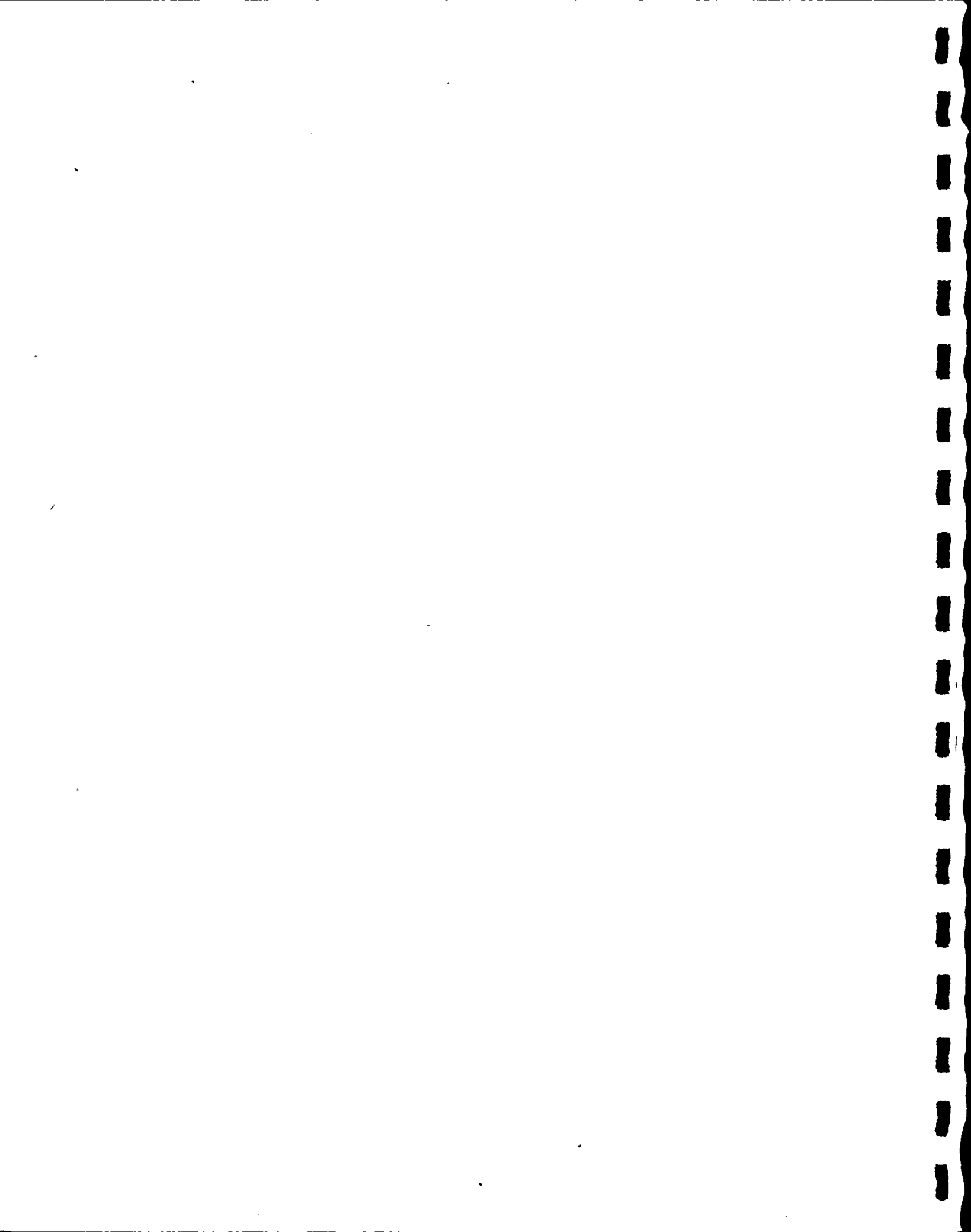
R_X
(RAD)

R_Y
(RAD)

R_Z
(RAD)

ADLPIPE PAGE 53

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK



ADLPIPE PAGE 53

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POKER STAT MCDL 1 Z SHOCKLOADS
SHOCK

SC	ME	SEQ	POS	MCDL FX (LB)	9 FREQUENCY FY (LB)	FZ (LB)	15.93 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	101.	15.	-285.	6673.	-5727.	8316.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-101.	-15.	285.	-6682.	5822.	-8314.	-0.0000	-0.0000	0.0000	-0.0000	0.0000	-0.0000
1	2	15	END	-101.	-15.	285.	5484.	12937.	-3625.	0.0001	0.0001	0.0002	-0.0000	0.0000	-0.0000
2	1	15	BEG	108.	22.	-277.	-5484.	-12937.	3625.	0.0001	0.0001	0.0002	-0.0000	0.0000	-0.0000
2	1	20	END	-108.	-22.	277.	11303.	12937.	-1361.	0.0001	0.0001	0.0002	-0.0000	0.0000	-0.0000
3	1	20	BEG	13.	75.	56.	-11135.	3954.	-528.	0.0001	0.0001	0.0002	-0.0000	0.0000	-0.0000
3	1	25	END	-13.	-75.	-56.	9157.	-3954.	974.	0.0000	0.0001	0.0002	-0.0000	0.0000	-0.0000
3	2	30	END	-13.	-75.	-56.	7178.	-3954.	1419.	-0.0000	0.0001	0.0002	0.0000	0.0000	-0.0000
4	1	30	BEG	11.	85.	72.	-7178.	3954.	-1419.	-0.0000	0.0001	0.0002	0.0000	0.0000	-0.0000
4	1	35	END	-11.	-85.	-72.	6602.	-3954.	1815.	-0.0001	0.0001	0.0001	0.0000	0.0000	-0.0000
4	2	40	END	-11.	-85.	-72.	2026.	-3954.	2210.	-0.0001	0.0001	0.0000	0.0000	0.0000	-0.0000
5	1	40	BEG	4.	95.	76.	-2026.	3954.	-2210.	-0.0001	0.0001	0.0000	0.0000	0.0000	-0.0000
5	1	45	END	-4.	-95.	-76.	-663.	-3954.	2335.	-0.0001	0.0001	-0.0001	0.0000	0.0000	-0.0000
5	2	50	END	-4.	-95.	-76.	-3352.	-3954.	2460.	-0.0001	0.0001	-0.0002	0.0000	0.0000	-0.0000
6	1	50	BEG	-11.	110.	54.	3352.	3954.	-2460.	-0.0001	0.0001	-0.0002	0.0000	0.0000	0.0000
6	1	55	END	11.	-110.	-54.	-6603.	-3954.	1786.	-0.0001	0.0001	-0.0003	0.0000	0.0000	0.0000
6	2	57	END	11.	-110.	-54.	-10125.	-3954.	1055.	-0.0001	0.0001	-0.0003	0.0000	0.0000	0.0000
7	1	57	BEG	-33.	159.	-90.	10125.	3954.	-1055.	-0.0001	0.0001	-0.0003	0.0000	0.0000	0.0000
7	1	60	END	33.	-159.	90.	-6565.	-3954.	-252.	-0.0000	0.0001	-0.0003	-0.0000	0.0000	0.0000
7	2	65	END	33.	-159.	90.	-3005.	-3954.	-1560.	0.0000	0.0001	-0.0002	-0.0000	0.0000	0.0000
7	3	70	END	33.	-159.	90.	18.	-3954.	-2670.	0.0000	0.0001	-0.0001	-0.0000	-0.0000	0.0000
8	1	70	BEG	-29.	170.	-105.	-18.	3954.	2670.	0.0000	0.0001	-0.0001	-0.0000	-0.0000	0.0000
8	1	75	END	29.	-170.	105.	82.	-3954.	-2688.	0.0000	0.0001	-0.0001	-0.0000	-0.0000	0.0000
8	2	80	END	29.	-170.	105.	5651.	891.	3635.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000

ADLPIPE PAGE 50

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POKER STAT MCDL 1 Z SHOCK

ADLPIPE PAGE 54

ARTHUR D. LITTLE INC.
NINE MILE PCKER STAT MODEL 1 Z SHOCK

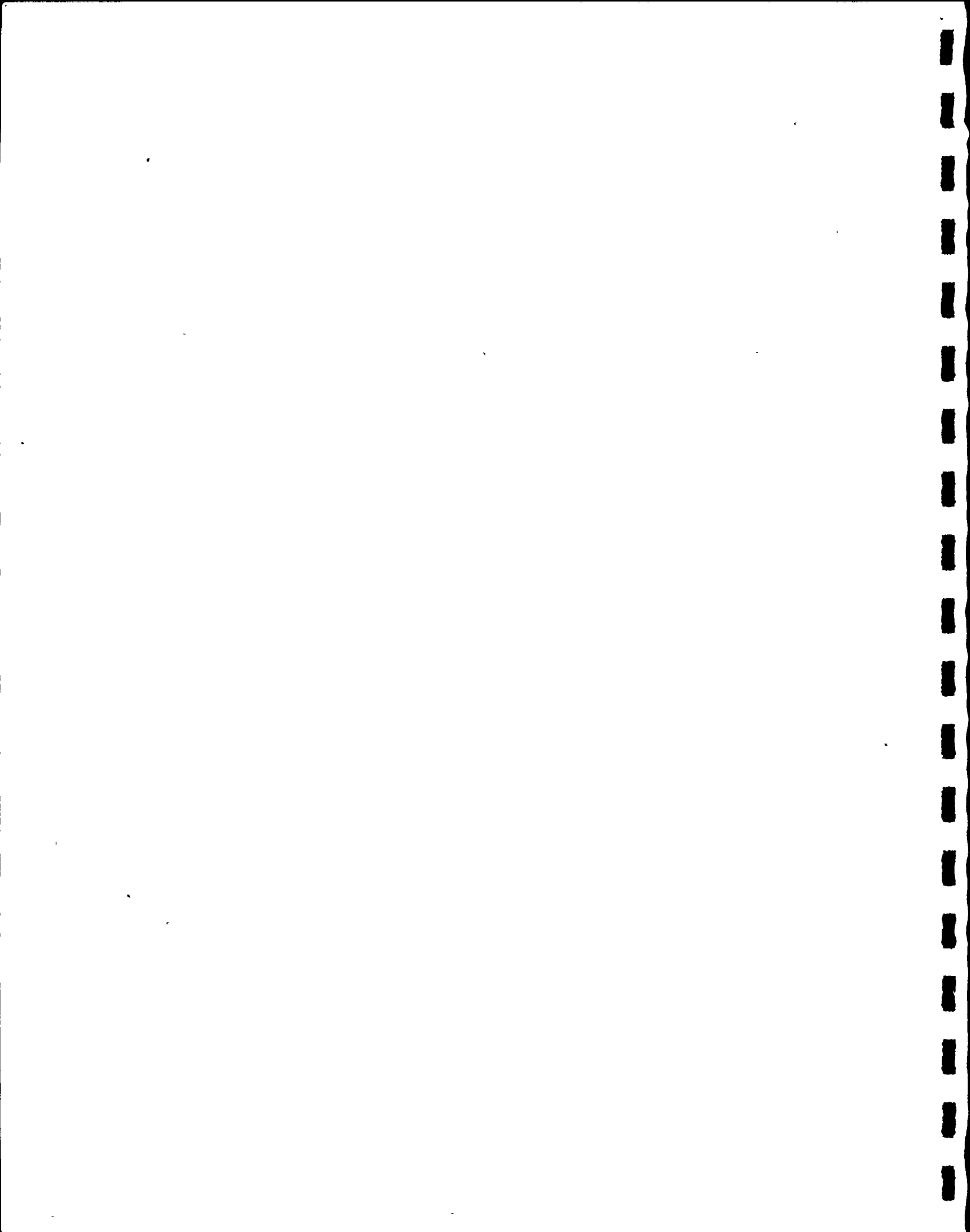
ADLPIPE STRESS ANALYSIS

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	KX (IN-LB)	KY (IN-LB)	KZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	29.	-170.	105.	5663.	955.	3737.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
9	1	85	BEG	-34.	177.	-108.	-5663.	-955.	-3737.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
9	1	86	END	34.	-177.	108.	6206.	3986.	8539.	-.0000	.0000	.0000	-.0000	-.0000	-.0000
9	2	87	END	34.	-177.	108.	598.	3986.	10311.	.0000	.0000	-.0000	-.0000	-.0000	-.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARTHUR D. LITTLE INC.
NINE MILE PCKER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 55

ARTHUR D. LITTLE INC.,
NINE MILE POWER STAT. MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

SC	ME	SEO	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	102.	-44.	-318.	-168.	-16891.	1889.	.0001	.0001	.0002	-.0000	.0000	-.0000
18	1	160	END	-102.	44.	318.	168.	7067.	-540.	.0001	.0002	.0009	-.0000	.0000	-.0000
18	2	165	END	-102.	44.	318.	168.	-2757.	808.	.0001	.0003	.0020	-.0000	.0000	-.0000
18	3	167	END	-102.	44.	318.	168.	-15615.	2574.	.0001	.0005	.0032	-.0000	.0000	-.0000
19	1	167	BEG	112.	13.	66.	-168.	15615.	-2574.	.0001	.0005	.0032	-.0000	.0000	-.0000
19	1	170	END	-112.	-13.	-66.	168.	-12954.	2071.	.0001	.0004	.0036	-.0000	-.0000	.0000
19	2	175	END	-112.	-13.	-66.	168.	-10294.	1568.	.0001	.0003	.0029	.0000	-.0000	.0000
20	1	175	BEG	114.	20.	151.	-168.	10294.	-1568.	.0001	.0003	.0029	.0000	-.0000	.0000
20	1	180	END	-114.	-20.	-151.	168.	-4240.	766.	.0001	-.0001	.0013	.0000	-.0000	.0000
20	2	185	END	-114.	-20.	-151.	168.	-1356.	384.	.0001	-.0003	.0004	.0000	-.0000	.0000
20	3	190	END	-114.	-20.	-151.	-25.	4195.	-206.	-.0009	-.0005	-.0006	.0000	-.0000	.0000
21	1	190	BEG	94.	9.	138.	25.	-4195.	206.	-.0009	-.0005	-.0006	.0000	-.0000	.0000
21	1	195	END	-94.	-9.	-138.	-25.	4227.	-206.	-.0009	-.0005	-.0006	.0000	-.0000	.0000
21	2	200	END	-94.	-9.	-138.	-24.	4261.	-210.	-.0009	-.0005	-.0006	.0000	-.0000	.0000
21	3	205	END	-94.	-9.	-138.	-9.	3343.	-160.	-.0014	-.0004	-.0004	.0000	.0000	.0000
22	1	205	BEG	74.	4.	132.	9.	-3343.	160.	-.0014	-.0004	-.0004	.0000	.0000	.0000
22	1	210	END	-74.	-4.	-132.	-9.	1952.	-120.	-.0014	-.0003	-.0004	.0000	.0000	.0000
22	2	215	END	-74.	-4.	-132.	-9.	562.	-80.	-.0014	-.0002	-.0004	.0000	.0000	.0000
22	3	220	END	-74.	-4.	-132.	-89.	-671.	-0.	-.0014	-.0001	-.0005	.0000	-.0000	.0000
23	1	220	BEG	30.	2.	118.	89.	671.	-0.	-.0014	-.0001	-.0005	.0000	-.0000	.0000
23	1	225	END	-30.	-2.	-118.	-121.	-173.	0.	-.0014	-.0001	-.0005	.0000	-.0000	.0000
23	2	230	END	-30.	-2.	-118.	-195.	986.	0.	-.0015	-.0001	-.0005	.0000	-.0000	.0000

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ARTHUR D. LITTLE INC.,
NINE MILE POWER STAT. MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

ADLPIPE PAGE 56

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

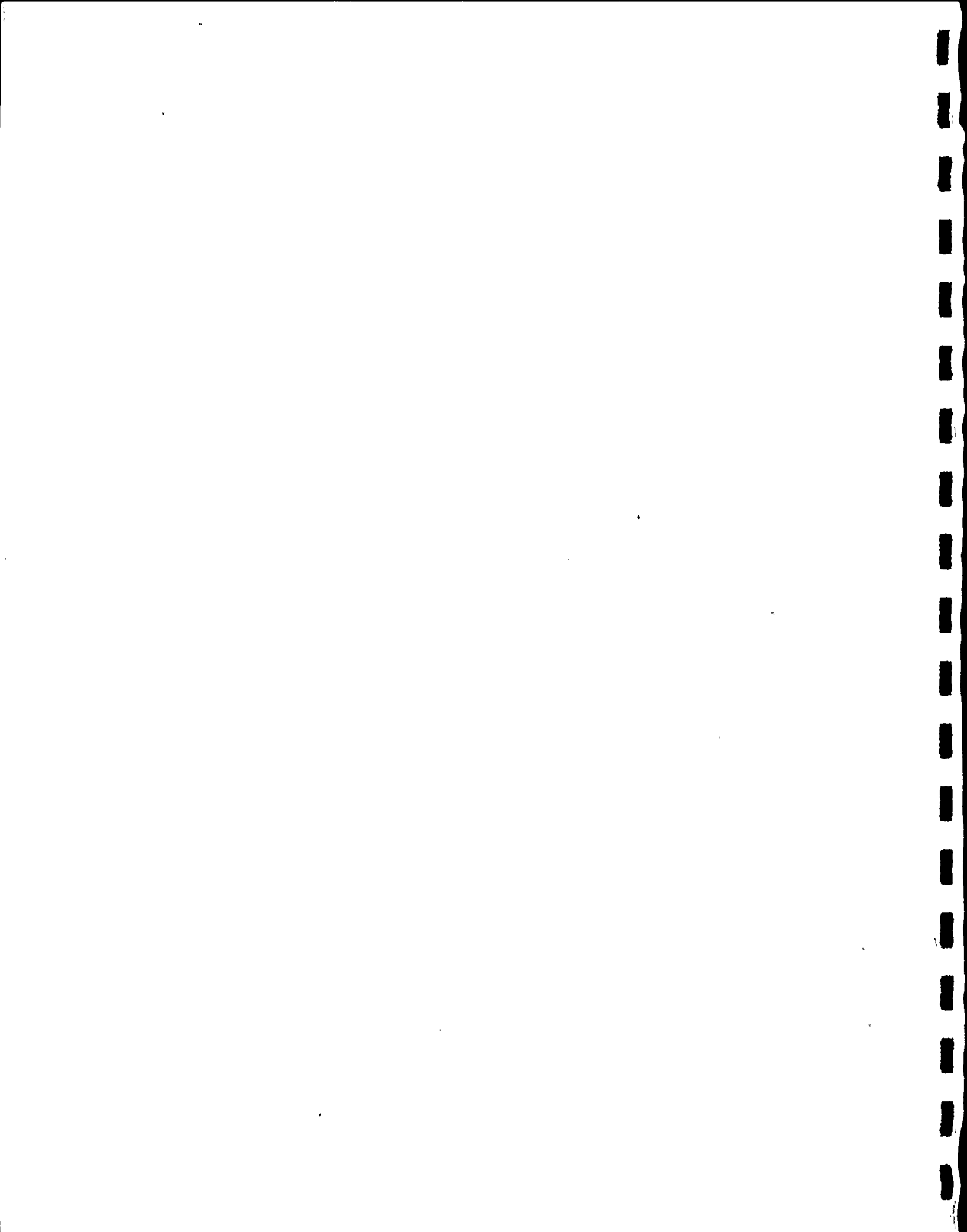
SC	ME	SEO	POS	FX (LB)	FY (LB)	FZ (LB)	FX (IN-LB)	FY (IN-LB)	FZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-30.	-2.	-118.	-268.	2105.	0.	-.0016	-.0001	-.0005	.0000	.0000	.0000
23	4	240	END	-30.	-2.	-118.	-342.	3244.	0.	-.0014	-.0001	-.0005	-.0000	.0000	.0000
24	1	240	BEG	-29.	23.	97.	342.	-3244.	0.	-.0014	-.0001	-.0005	-.0000	.0000	.0000
24	1	245	END	29.	3.	-97.	-228.	2163.	0.	-.0011	-.0001	-.0005	-.0000	.0000	.0000
24	2	250	END	29.	3.	-97.	-114.	1081.	0.	-.0006	-.0001	-.0005	-.0000	.0000	.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	0.0000	.0000	-.0005	-.0000	.0000	.0000
24	3	255	END	29.	3.	-97.	-0.	-0.	0.	0.0000	.0000	-.0005	-.0000	.0000	.0000

ADLPIPE PAGE 57

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
1	5	101.	15.	-285.	6673.	-5727.	8316.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	7.	7.	8.	0.	-0.	0.	.0001	.0001	.0002	-.0000	.0000	-.0000
3	20	6.	9.	15.	0.	-0.	0.	.0001	.0001	.0002	-.0000	.0000	-.0000
4	30	-1.	16.	17.	-0.	-0.	0.	-.0000	.0001	.0002	.0000	.0000	-.0000
5	40	-2.	10.	3.	-0.	0.	0.	-.0001	.0001	.0000	.0000	.0000	-.0000
6	50	-15.	15.	-21.	-0.	-0.	-0.	-.0001	.0001	-.0002	.0000	.0000	.0000
7	57	-22.	49.	-144.	-0.	0.	-0.	-.0001	.0001	-.0003	.0000	.0000	.0000
8	70	4.	12.	-15.	0.	0.	-0.	.0000	.0001	-.0001	-.0000	-.0000	.0000
9	85	-5.	7.	-3.	0.	0.	0.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000
10	87	34.	-177.	108.	598.	3986.	10311.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	10.	56.	384.	-0.	-0.	0.	.0001	.0005	.0032	-.0000	.0000	-.0000
20	175	2.	7.	85.	-0.	0.	-0.	.0001	.0003	.0029	.0000	-.0000	.0000
21	190	-19.	-11.	-13.	-0.	0.	-0.	-.0009	<u>-.0005</u>	-.0006	.0000	-.0000	.0000
22	205	-21.	-5.	-6.	0.	0.	-0.	-.0014	-.0004	-.0004	.0000	.0000	.0000
23	220	-43.	-2.	-15.	0.	0.	-0.	-.0014	-.0001	-.0005	.0000	-.0000	.0000
24	240	-59.	-5.	-20.	-0.	-0.	0.	-.0014	-.0001	-.0005	-.0000	.0000	.0000
25	255	29.	3.	-97.	-0.	-0.	0.	0.0000	.0000	-.0005	-.0000	.0000	.0000



ADLPIPE PAGE 58

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK
MODE 9 FREQUENCY 15.93

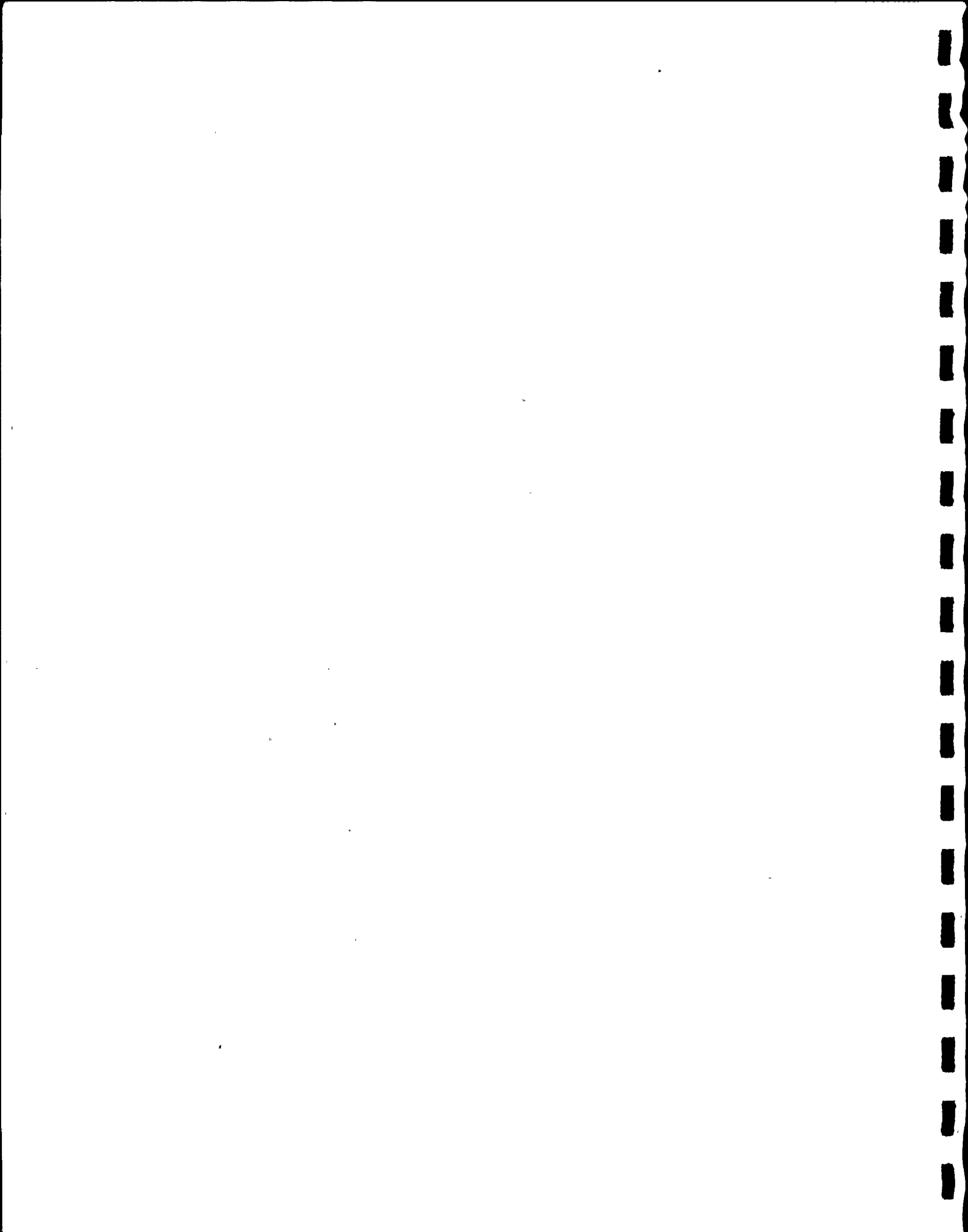
NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ADLPIPE PAGE 59

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK

LEADS
SHOCK

SC	HE	SEQ	POS	MODE FX (LB)	10 FREQUENCY FY (LB)	FZ (LB)	18.09 MX (IN-LB)	PY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	-16.	124.	-2.	-3756.	-1112.	-321.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	16.	-124.	2.	3693.	1103.	336.	.0000	-.0000	-.0000	.0000	.0000	.0000
1	2	15	END	16.	-124.	2.	-1657.	420.	774.	.0001	-.0001	-.0001	.0000	.0000	.0000
2	1	15	BEG	-12.	120.	-7.	1657.	-420.	-774.	.0001	-.0001	-.0001	.0000	.0000	.0000
2	1	20	END	12.	-120.	7.	-1513.	420.	519.	.0001	-.0001	-.0001	.0000	.0000	.0000
3	1	20	BEG	8.	22.	3.	1051.	263.	4159.	.0001	-.0001	-.0001	.0000	.0000	.0000
3	1	25	END	-8.	-22.	-3.	-1158.	-263.	-3857.	.0001	-.0001	-.0001	.0000	.0000	.0000
3	2	30	END	-8.	-22.	-3.	-1264.	-263.	-3555.	.0001	-.0001	-.0001	-.0000	.0000	.0000
4	1	30	BEG	22.	16.	-5.	1264.	263.	3555.	.0001	-.0001	-.0001	-.0000	.0000	.0000
4	1	35	END	-22.	-16.	5.	-1076.	-263.	-2783.	.0001	-.0001	-.0001	-.0000	.0000	-.0000
4	2	40	END	-22.	-16.	5.	-887.	-263.	-2011.	.0001	-.0001	-.0001	-.0000	.0000	-.0000
5	1	40	BEG	31.	9.	-11.	887.	263.	2011.	.0001	-.0001	-.0001	-.0000	.0000	-.0000
5	1	45	END	-31.	-9.	11.	-481.	-263.	-909.	.0000	-.0001	-.0000	-.0000	.0000	-.0000
5	2	50	END	-31.	-9.	11.	-75.	-263.	193.	.0000	-.0001	-.0000	-.0000	.0000	-.0000
6	1	50	BEG	32.	41.	-14.	75.	263.	-193.	.0000	-.0001	-.0000	-.0000	.0000	-.0000
6	1	55	END	-32.	1.	14.	783.	-263.	2109.	-.0001	-.0001	.0000	-.0000	.0000	-.0000
6	2	57	END	-32.	1.	14.	1711.	-263.	4185.	-.0001	-.0001	.0000	-.0000	.0000	-.0000
7	1	57	BEG	-26.	-34.	11.	-1711.	263.	-4185.	-.0001	-.0001	.0000	-.0000	.0000	-.0000
7	1	60	END	26.	34.	-11.	1293.	-263.	3169.	-.0001	-.0001	.0001	-.0000	.0000	.0000
7	2	65	END	26.	34.	-11.	875.	-263.	2153.	-.0001	-.0001	.0001	.0000	.0000	.0000
7	3	70	END	26.	34.	-11.	520.	-263.	1261.	-.0001	-.0001	.0000	.0000	.0000	.0000
8	1	70	BEG	-34.	-42.	17.	-520.	263.	-1291.	-.0001	-.0001	.0000	.0000	.0000	.0000
8	1	75	END	34.	42.	-17.	510.	-263.	1270.	-.0001	-.0001	.0000	.0000	.0000	.0000
8	2	80	END	34.	42.	-17.	-443.	-837.	-2140.	.0000	-.0000	.0000	.0000	.0000	.0000



ADLPIPE PAGE 60

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

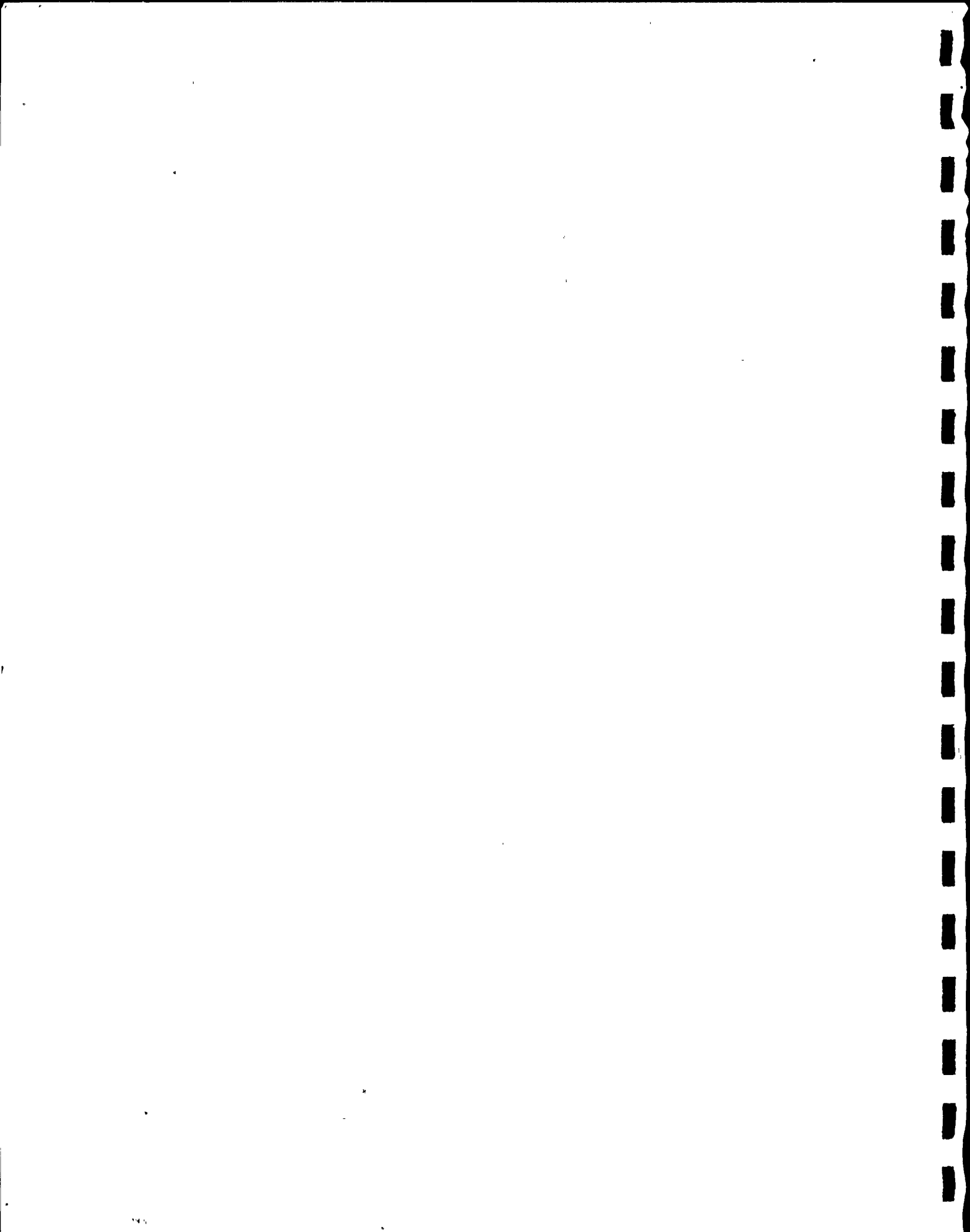
ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	34.	42.	-17.	-445.	-844.	-2165.	.0000	-.0000	.0000	.0000	.0000	.0000
9	1	85	BEG	-32.	-45.	18.	445.	844.	2165.	.0000	-.0000	.0000	.0000	.0000	.0000
9	1	86	END	32.	45.	-18.	-583.	-1232.	-3378.	.0000	-.0000	.0000	.0000	.0000	.0000
9	2	87	END	32.	45.	-18.	-350.	-1232.	-1692.	-.0000	-.0000	.0000	.0000	.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 61

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS



ADLPIPE PAGE 61

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

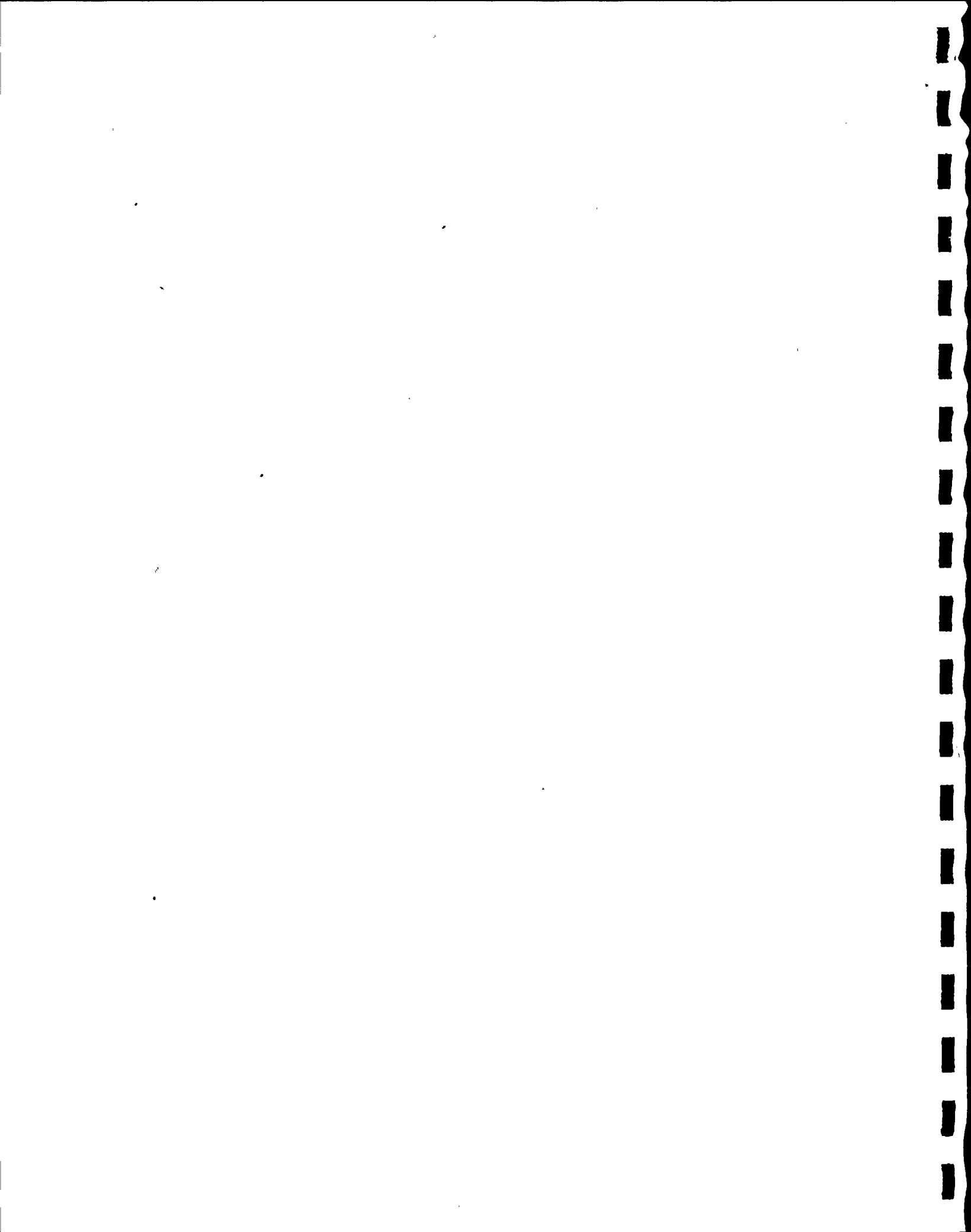
ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	-13.	92.	-16.	461.	-684.	-4678.	.0001	-.0001	-.0001	.0000	.0000	.0000
18	1	160	END	13.	-92.	16.	-461.	179.	1841.	.0001	-.0002	-.0000	-.0000	.0000	.0000
18	2	165	END	13.	-92.	16.	-461.	-326.	-996.	.0001	-.0005	.0001	-.0000	.0000	.0000
18	3	167	END	13.	-92.	16.	-461.	-986.	-4709.	.0001	-.0007	.0001	-.0000	.0000	.0000
19	1	167	BEG	-0.	-21.	4.	461.	986.	4709.	.0001	-.0007	.0001	-.0000	.0000	.0000
19	1	170	END	0.	21.	-4.	-461.	-812.	-3680.	.0001	-.0007	.0002	-.0000	-.0000	-.0000
19	2	175	END	0.	21.	-4.	-461.	-638.	-3052.	.0001	-.0004	.0001	-.0000	-.0000	-.0000
20	1	175	BEG	3.	-37.	8.	461.	638.	3052.	.0001	-.0004	.0001	-.0000	-.0000	-.0000
20	1	180	END	-3.	37.	-8.	-461.	-302.	-1579.	.0001	.0001	.0000	-.0000	-.0000	-.0000
20	2	185	END	-3.	37.	-8.	-461.	-142.	-877.	.0001	.0005	-.0001	-.0000	-.0000	-.0000
20	3	190	END	-3.	37.	-8.	321.	100.	-110.	.0000	.0010	-.0001	-.0000	-.0000	-.0000
21	1	190	BEG	4.	-8.	5.	-321.	-100.	110.	.0000	.0010	-.0001	-.0000	-.0000	-.0000
21	1	195	END	-4.	8.	-5.	324.	102.	-110.	.0000	.0010	-.0001	-.0000	-.0000	-.0000
21	2	200	END	-4.	8.	-5.	326.	103.	-110.	.0000	.0011	-.0001	-.0000	-.0000	-.0000
21	3	205	END	-4.	8.	-5.	495.	-99.	-279.	.0000	.0007	-.0001	-.0000	-.0000	-.0000
22	1	205	BEG	5.	-7.	3.	-495.	-99.	279.	.0000	.0007	-.0001	-.0000	-.0000	-.0000
22	1	210	END	-5.	-7.	-3.	495.	70.	-209.	.0000	.0005	-.0001	-.0000	-.0000	-.0000
22	2	215	END	-5.	-7.	-3.	495.	41.	-140.	.0000	.0003	-.0000	-.0000	-.0000	-.0000
22	3	220	END	-5.	-7.	-3.	356.	81.	0.	-.0000	-.0001	-.0000	-.0000	-.0000	-.0000
23	1	220	BEG	4.	1.	2.	-356.	-81.	0.	-.0000	-.0001	-.0000	-.0000	-.0000	-.0000
23	1	225	END	-4.	-1.	-2.	337.	139.	-0.	-.0001	-.0001	-.0000	-.0000	-.0000	-.0000
23	2	230	END	-4.	-1.	-2.	294.	272.	-0.	-.0001	-.0000	-.0000	-.0000	-.0000	-.0000

ADLPIPE PAGE 62

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

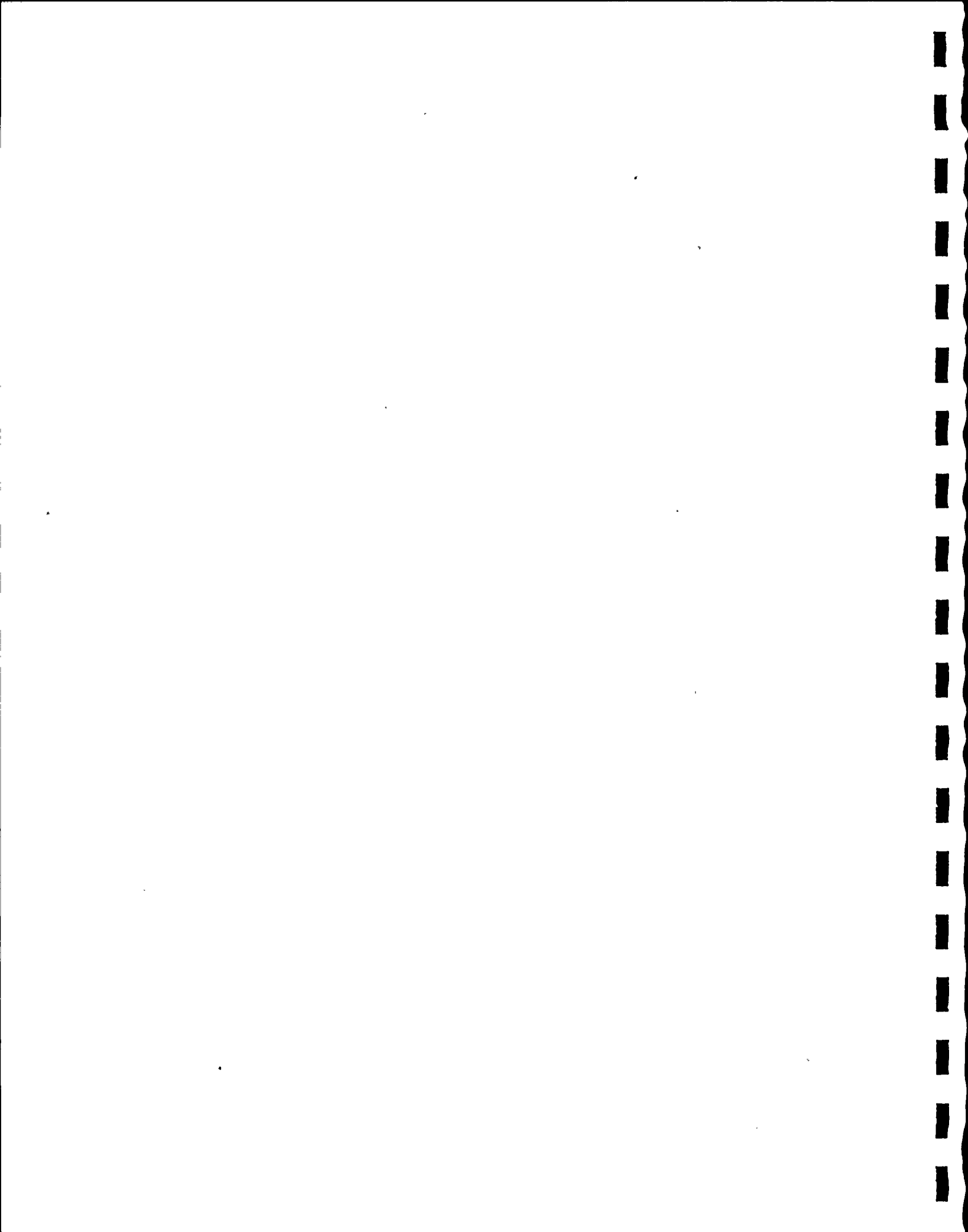
ADLPIPE STRESS ANALYSIS



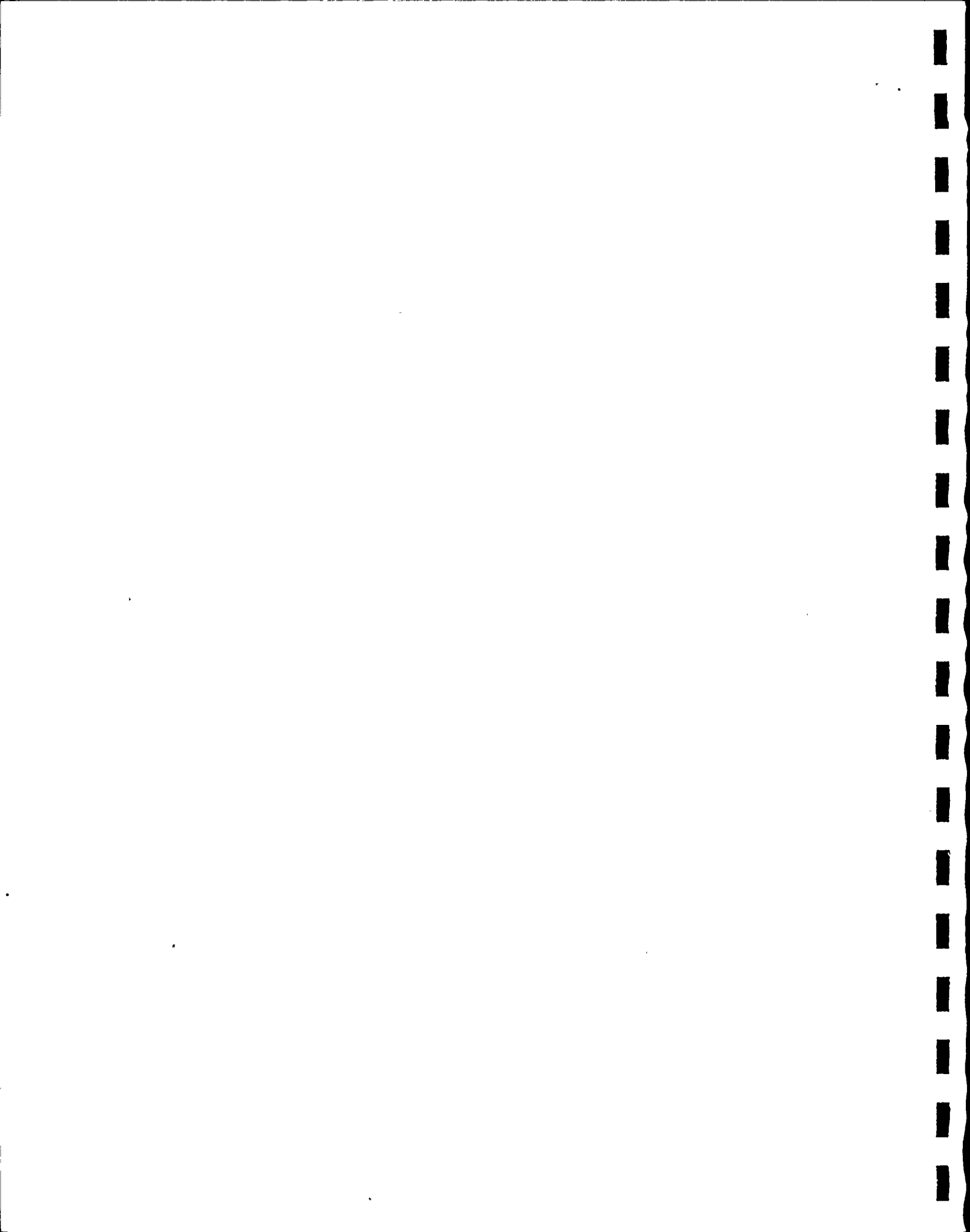
ADLPIPE PAGE 62

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

SC	ME	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	OX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-4.	-1.	-2.	252.	405.	-0.	-.0002	-.0000	-.0000	-.0000	-.0000	-.0000
23	4	240	END	-4.	-1.	-2.	209.	538.	-0.	-.0002	.0000	-.0000	-.0000	.0000	-.0000
24	1	240	BEG	5.	2.	2.	-209.	-538.	0.	-.0002	.0000	-.0000	-.0000	.0000	-.0000
24	1	245	END	5.	-2.	-2.	139.	359.	0.	-.0001	.0000	-.0000	.0000	.0000	-.0000
24	2	250	END	5.	-2.	-2.	70.	179.	0.	-.0001	.0000	-.0000	.0000	.0000	-.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	-.0000	-.0000	.0000	.0000	-.0000
24	3	255	END	5.	-2.	-2.	-0.	-0.	0.	.0000	-.0000	-.0000	.0000	.0000	-.0000



NET PT SEC			NETWORK POINT REACTIONS AND DEFLECTIONS											
			FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5		-16.	124.	-2.	-3756.	-1112.	-321.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15		4.	-4.	-4.	-0.	-0.	-0.	.0001	-.0001	-.0001	.0000	.0000	.0000
3	20		8.	-6.	-6.	-0.	-0.	-0.	.0001	-.0001	-.0001	.0000	.0000	.0000
4	30		13.	-7.	-8.	0.	0.	-0.	.0001	-.0001	-.0001	-.0000	.0000	.0000
5	40		9.	-7.	-6.	0.	-0.	0.	.0001	-.0001	-.0001	-.0000	.0000	-.0000
6	50		1.	-10.	-3.	0.	-0.	0.	.0000	-.0001	-.0000	-.0000	.0000	-.0000
7	57		-58.	-33.	25.	0.	0.	0.	-.0001	-.0001	.0000	-.0000	.0000	-.0000
8	70		-8.	-8.	6.	-0.	-0.	-0.	-.0001	-.0001	.0000	.0000	.0000	.0000
9	85		1.	-2.	1.	-0.	-0.	-0.	.0000	-.0000	.0000	.0000	.0000	.0000
10	87		32.	45.	-18.	350.	-1232.	-1692.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155		0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167		13.	-112.	21.	-0.	-0.	-0.	.0001	-.0007	.0001	-.0000	.0000	.0000
20	175		3.	-16.	4.	-0.	0.	0.	.0001	-.0004	.0001	-.0000	-.0000	-.0000
21	190		1.	29.	-4.	0.	0.	0.	.0000	.0010	-.0001	-.0000	-.0000	-.0000
22	205		0.	14.	-2.	-0.	0.	0.	.0000	.0007	-.0001	-.0000	-.0000	-.0000
23	220		-1.	-6.	-0.	-0.	0.	0.	-.0000	-.0001	-.0000	-.0000	-.0000	-.0000
24	240		-8.	1.	-0.	0.	0.	-0.	-.0002	.0000	-.0000	-.0000	.0000	-.0000
25	255		5.	-2.	-2.	-0.	-0.	0.	.0000	-.0000	-.0000	.0000	.0000	-.0000



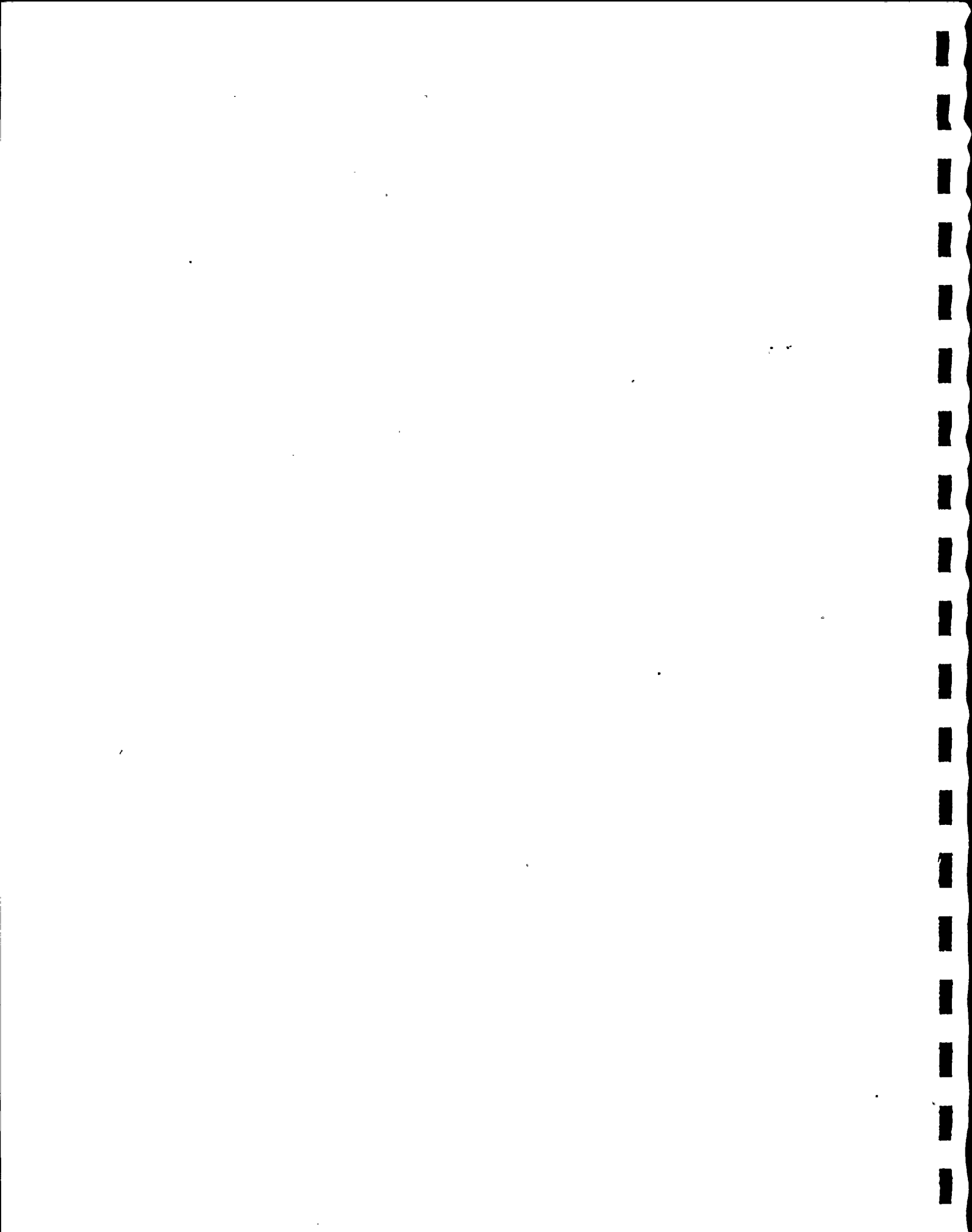
ADLPIPE PAGE 64

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK
VCDE 10 FREQUENCY 18.09

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS										
	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	PY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK



ADLPIPE PAGE 65

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE

NINE MILE POWER STAT MODEL 1 2 SHOCK

11, FREQUENCY 21.27

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 66

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 2 SHOCK

ADLPIPE PAGE 66

ARTHUR D. LITTLE INC.

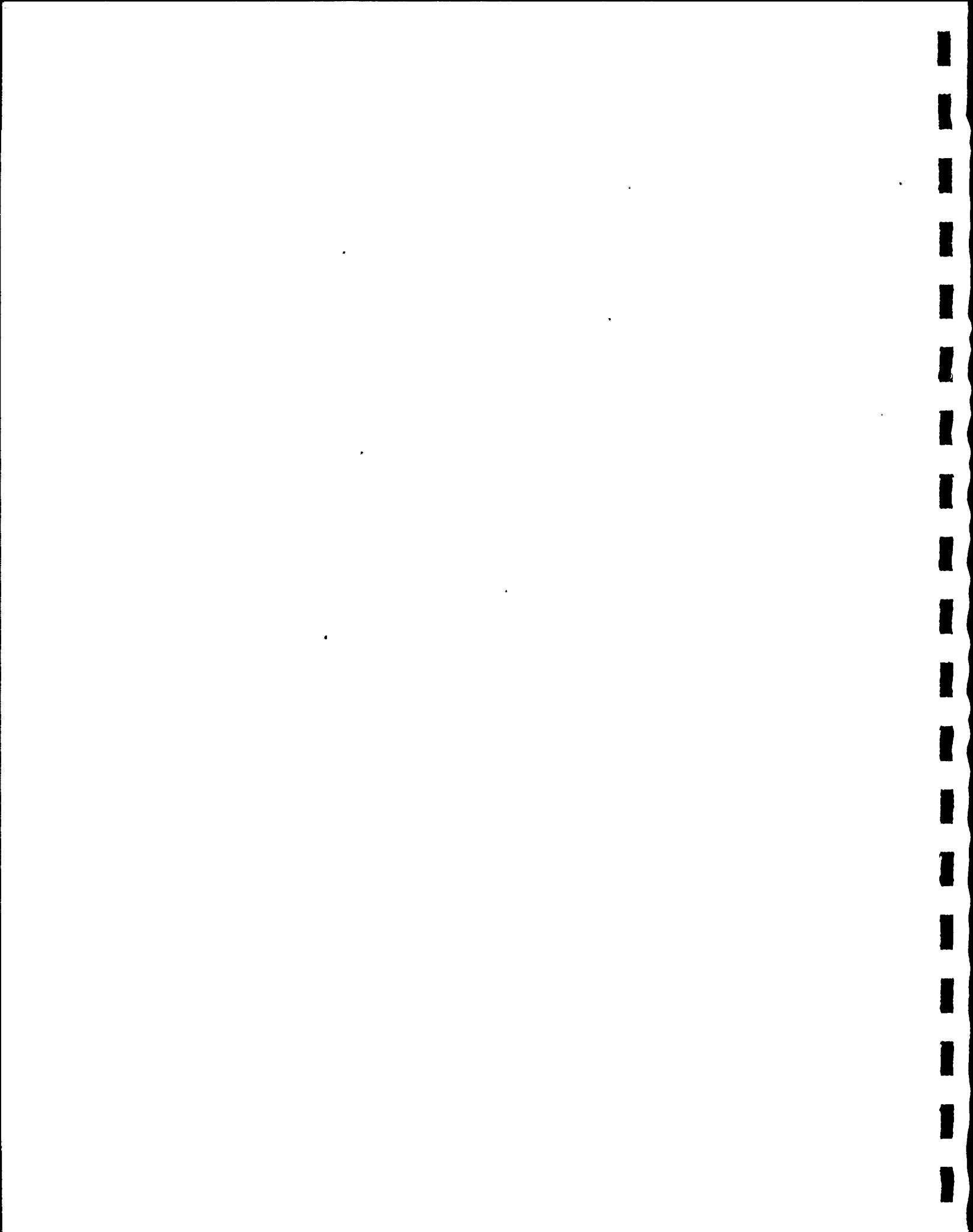
ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE

NINE MILE POWER STAT MODEL 1 Z SHOCK

12, FREQUENCY 23.56

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM



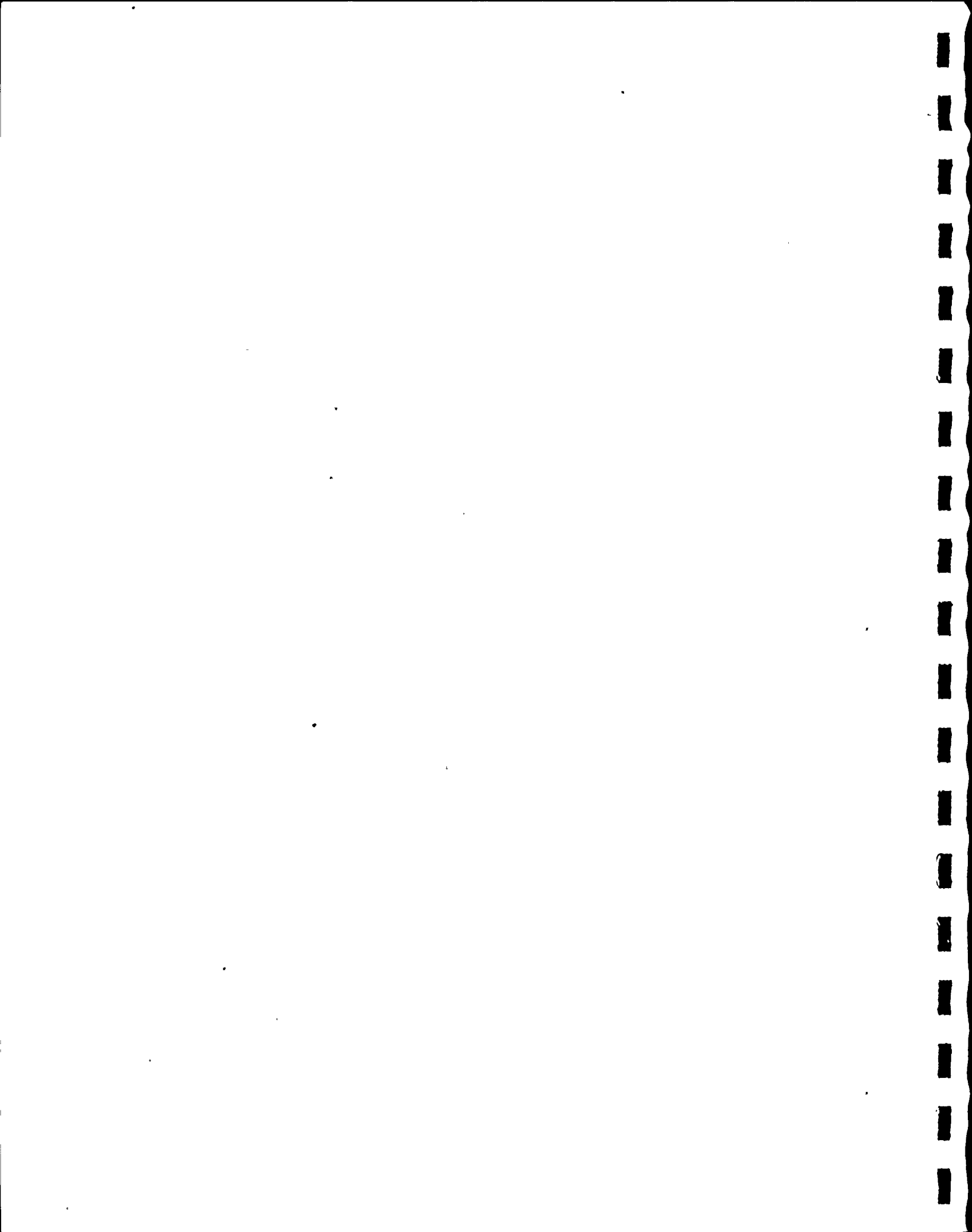
ADLPIPE PAGE 67

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 13, FREQUENCY 27.61

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 68

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK



ADLPIPE PAGE 68

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 Z SHOCK

DYNAMIC PIPE STRESS ANALYSIS, MODE 14, FREQUENCY 28.68

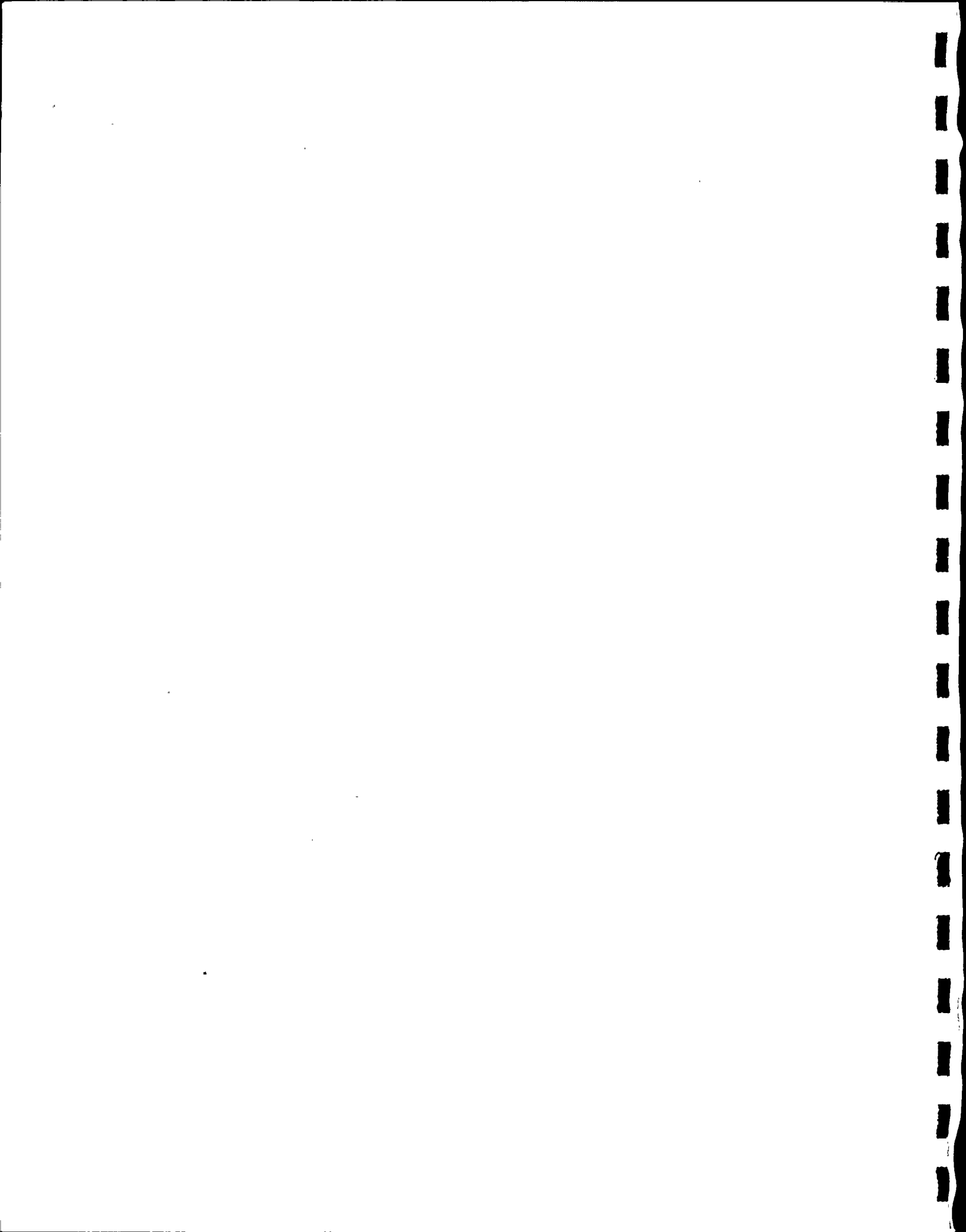
DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

ADLPIPE PAGE 69

ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

NINE MILE POWER STAT MODEL 1 Z SHOCK



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ARTHUR D. LITTLE INC.

ADLPIPE STRESS ANALYSIS

DYNAMIC PIPE STRESS ANALYSIS, MODE 15, FREQUENCY 31.57
NINE MILE POWER STAT. MODEL 1 Z SHOCK

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT. MODEL 1 2 SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 16, FREQUENCY 32.32

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 17, FREQUENCY 38.57

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

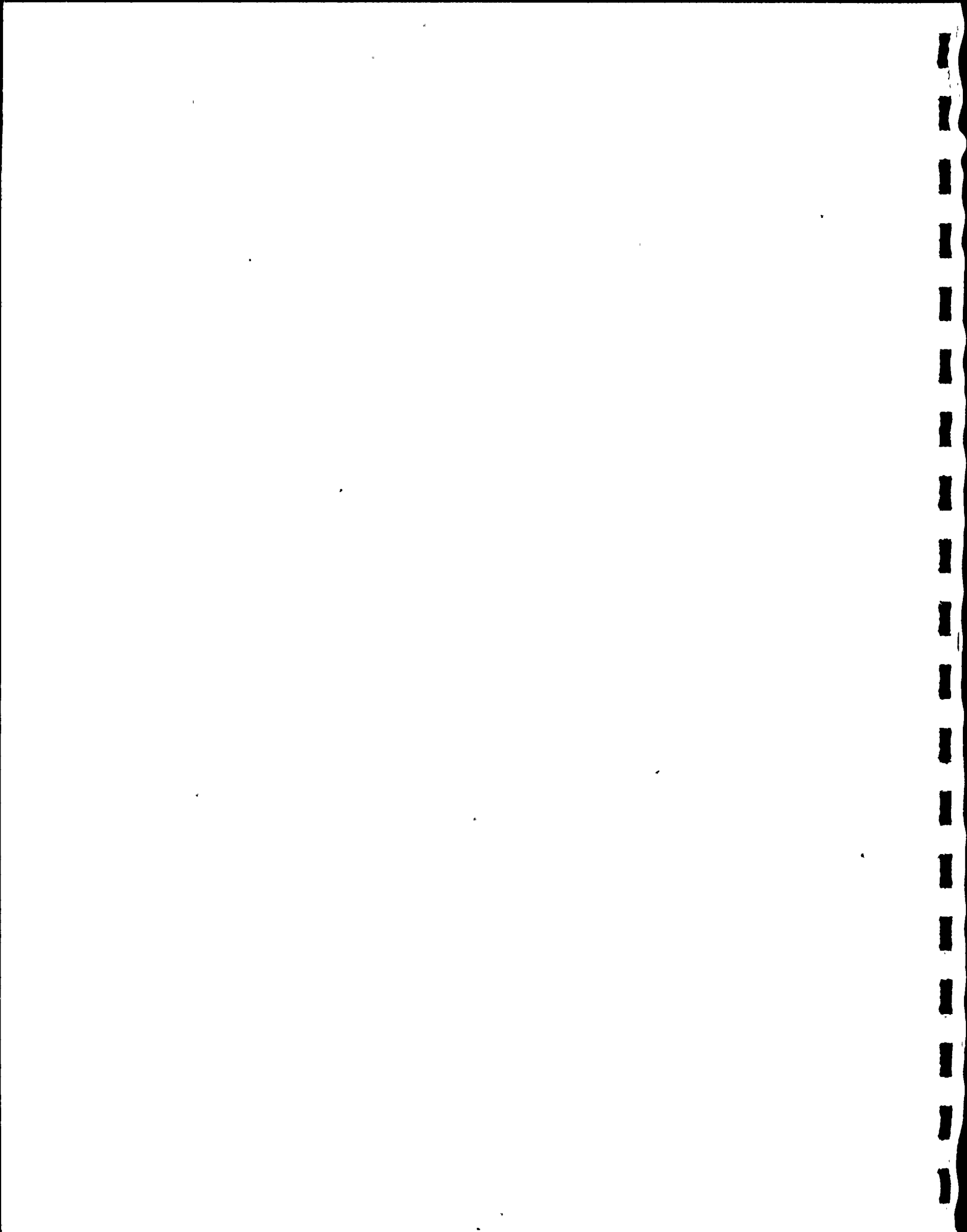
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK
DYNAMIC PIPE STRESS ANALYSIS, NODE 18, FREQUENCY 41.84

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK



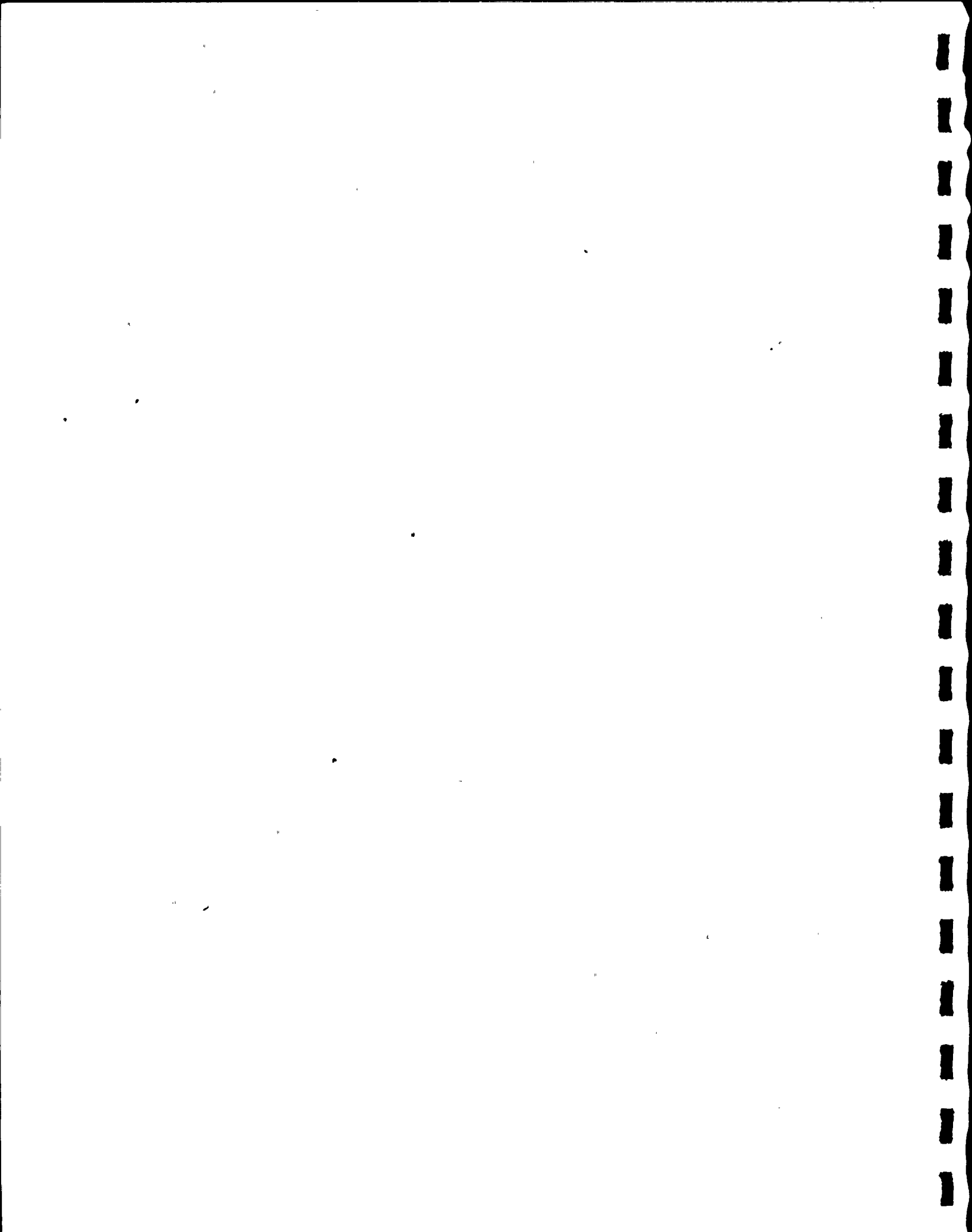
ADLPIPE PAGE 73

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK
DYNAMIC PIPE STRESS ANALYSIS, MODE 19, FREQUENCY 47.39

DISPLACEMENTS LESS THAN .001 INCH OR .025 MM

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK



ADLPIPE PAGE 74

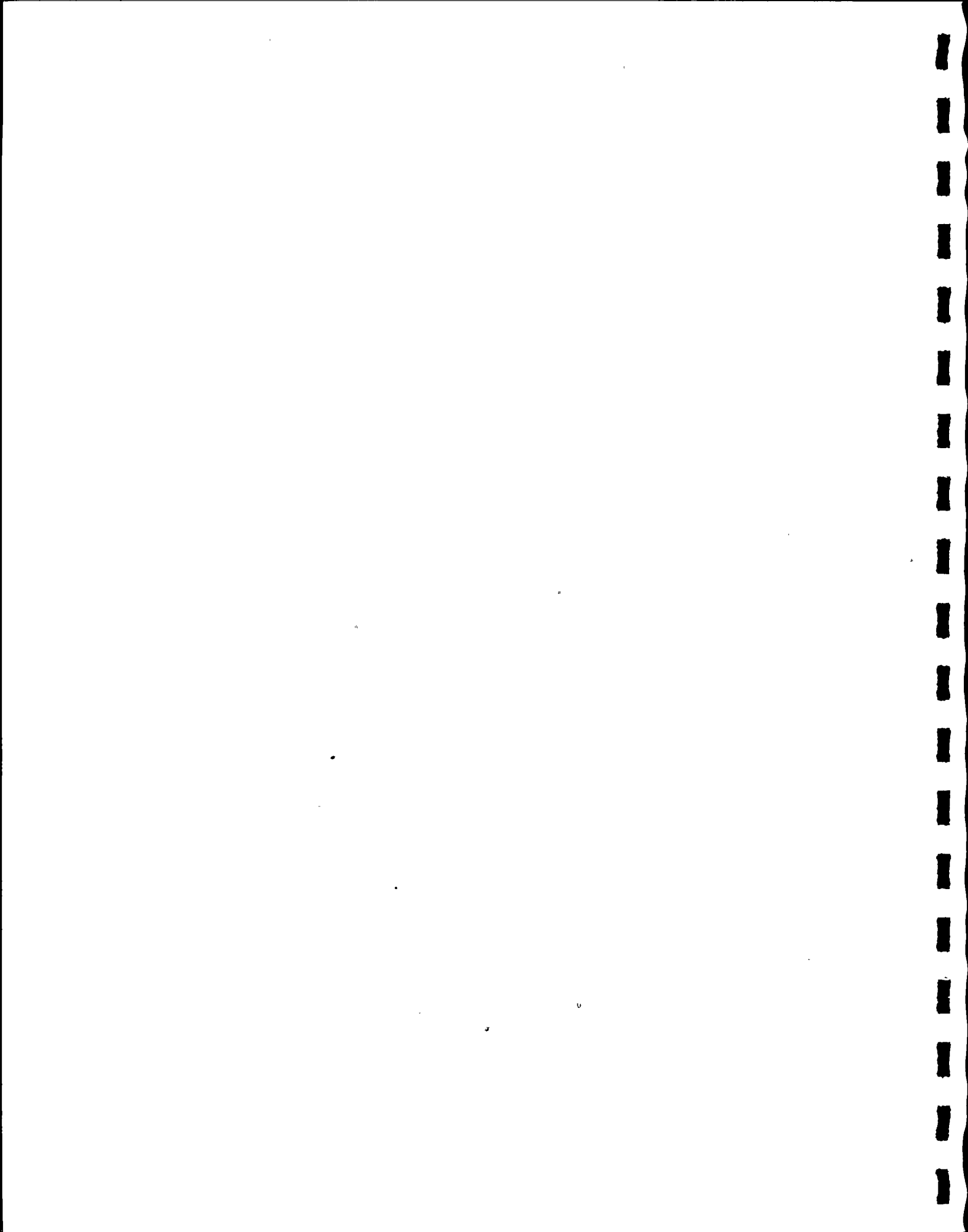
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MDOEL 1 Z SHOCK

LOADS
SHOCK

SC	ME	SEQ	POS	MODE FX (LB)	20 FREQUENCY FY (LB)	FZ (LB)	48.93 MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5	BEG	98.	95.	-111.	-361.	2802.	3341.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	10	END	-98.	-95.	111.	305.	-2730.	-3329.	-0.0000	-0.0000	.0000	.0000	-0.0000	-0.0000
1	2	15	END	-98.	-95.	111.	1096.	2611.	1964.	-0.0001	-0.0000	.0000	-0.0000	-0.0000	-0.0000
2	1	15	BEG	52.	95.	-90.	-1096.	-2611.	-1964.	-0.0001	-0.0000	.0000	-0.0000	-0.0000	-0.0000
2	1	20	END	-52.	-95.	90.	2986.	2611.	3066.	-0.0001	-0.0000	.0001	-0.0000	-0.0000	.0000
3	1	20	BEG	-21.	97.	3.	-2949.	-651.	-3283.	-0.0001	-0.0000	.0001	-0.0000	-0.0000	.0000
3	1	25	END	21.	-97.	-3.	2844.	651.	2524.	-0.0001	-0.0000	.0001	.0000	-0.0000	.0000
3	2	30	END	21.	-97.	-3.	2740.	651.	1766.	-0.0000	-0.0000	.0001	.0000	-0.0000	.0000
4	1	30	BEG	-56.	94.	45.	-2740.	-651.	-1766.	-0.0000	-0.0000	.0001	.0000	-0.0000	.0000
4	1	35	END	56.	-94.	-45.	1136.	651.	-237.	-0.0000	-0.0000	.0000	.0000	-0.0000	.0000
4	2	40	END	56.	-94.	-45.	-468.	651.	-2240.	.0000	-0.0000	-0.0000	.0000	.0000	.0000
5	1	40	BEG	-27.	88.	41.	468.	-651.	2240.	.0000	-0.0000	-0.0000	.0000	.0000	.0000
5	1	45	END	27.	-88.	-41.	-1933.	651.	-3211.	.0001	-0.0000	-0.0000	.0000	.0000	.0000
5	2	50	END	27.	-88.	-41.	-3397.	651.	-4183.	.0001	-0.0000	-0.0001	.0000	.0000	-0.0000
6	1	50	BEG	58.	76.	-23.	3397.	-651.	4183.	.0001	-0.0000	-0.0001	.0000	.0000	-0.0000
6	1	55	END	-58.	-76.	23.	-2038.	651.	-713.	.0000	-0.0000	-0.0000	-0.0000	.0000	-0.0000
6	2	57	END	-58.	-76.	23.	-567.	651.	3044.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
7	1	57	BEG	-20.	26.	-20.	567.	-651.	-3044.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
7	1	60	END	20.	-26.	20.	225.	651.	2262.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
7	2	65	END	20.	-26.	20.	1017.	651.	1480.	-0.0000	-0.0000	.0001	-0.0000	.0000	.0000
7	3	70	END	20.	-26.	20.	1689.	651.	815.	-0.0000	-0.0000	.0001	-0.0000	.0000	.0000
8	1	70	BEG	-40.	11.	58.	-1689.	-651.	-815.	-0.0000	-0.0000	.0001	-0.0000	.0000	.0000
8	1	75	END	40.	-11.	-58.	1654.	651.	791.	-0.0000	-0.0000	.0001	-0.0000	.0000	.0000
8	2	80	END	40.	-11.	-58.	-904.	-1749.	-516.	-0.0000	.0000	.0000	-0.0000	.0000	-0.0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MDOEL 1 Z SHOCK



ADLPIPE PAGE 75

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
8	3	85	END	40.	-11.	-58.	-903.	-1781.	-509.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	85	BEG	-46.	19.	115.	903.	1781.	509.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	1	86	END	46.	-19.	-115.	-903.	-1756.	-5.	-.0000	.0000	.0000	-.0000	.0000	-.0000
9	2	87	END	46.	-19.	-115.	5128.	-4756.	2404.	0.0000	.0000	.0000	.0000	.0000	.0000
10	1	87	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	1	88	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	2	90	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	90	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	1	95	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	2	100	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	100	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	1	105	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	2	107	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	107	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	1	110	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	2	115	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	115	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	1	120	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	2	125	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	125	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	1	130	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	2	135	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	135	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	1	140	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	2	145	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ADLPIPE PAGE 76

ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

SC	HE	SEO	POS	F _X (LB)	F _Y (LB)	F _Z (LB)	M _X (IN-LB)	M _Y (IN-LB)	M _Z (IN-LB)	D _X (IN)	D _Y (IN)	D _Z (IN)	R _X (RAD)	R _Y (RAD)	R _Z (RAD)
16	3	150	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	150	BEG	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	1	155	END	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	1	20	BEG	13.	-4.	-55.	-37.	-1960.	217.	-.0001	-.0000	.0001	-.0000	-.0000	.0000
18	1	160	END	-13.	4.	55.	37.	257.	-90.	-.0001	-.0000	.0001	-.0000	.0000	-.0000
18	2	165	END	-13.	4.	55.	37.	-1246.	37.	-.0001	.0000	.0001	-.0000	.0000	-.0000
18	3	167	END	-13.	4.	55.	37.	23675.	204.	-.0001	.0000	.0001	-.0000	-.0000	-.0000
19	1	167	BEG	-94.	4.	77.	-37.	3675.	-204.	-.0001	.0000	.0001	-.0000	-.0000	-.0000
19	1	170	END	94.	-4.	-77.	37.	-574.	61.	-.0001	.0000	-.0001	-.0000	-.0000	.0000
19	2	175	END	94.	-4.	-77.	37.	2528.	-81.	-.0001	-.0000	-.0003	-.0000	-.0000	.0000
20	1	175	BEG	-117.	1.	-11.	-37.	-2528.	81.	-.0001	-.0000	-.0003	-.0000	-.0000	.0000
20	1	180	END	117.	-1.	11.	37.	2086.	-107.	-.0001	-.0000	-.0004	.0000	.0000	.0000
20	2	185	END	117.	-1.	11.	37.	1875.	-119.	-.0001	-.0000	-.0003	.0000	.0000	-.0000
20	3	190	END	117.	-1.	11.	7.	-812.	43.	.0001	-.0000	-.0002	.0000	.0000	-.0000
21	1	190	BEG	-91.	-2.	-46.	-7.	812.	-43.	.0001	-.0000	-.0002	.0000	.0000	-.0000
21	1	195	END	91.	2.	46.	6.	-843.	45.	.0001	-.0000	-.0002	.0000	.0000	-.0000
21	2	200	END	91.	2.	46.	6.	-875.	47.	.0001	-.0000	-.0002	.0000	.0000	-.0000
21	3	205	END	91.	2.	46.	-31.	-1796.	150.	.0003	-.0000	-.0002	.0000	-.0000	.0000
22	1	205	BEG	-54.	-4.	-75.	31.	1796.	-150.	.0003	-.0000	-.0002	.0000	-.0000	.0000
22	1	210	END	54.	4.	75.	-31.	-1008.	112.	.0003	-.0000	-.0001	.0000	-.0000	.0000
22	2	215	END	54.	4.	75.	-31.	-220.	75.	.0003	-.0000	-.0001	.0000	-.0000	.0000
22	3	220	END	54.	4.	75.	44.	224.	-0.	.0002	.0000	.0000	.0000	-.0000	.0000
23	1	220	BEG	1.	1.	-71.	-44.	-224.	-0.	.0002	.0000	.0000	.0000	-.0000	.0000
23	1	225	END	-1.	-1.	71.	32.	235.	0.	.0001	.0000	.0000	.0000	-.0000	.0000
23	2	230	END	-1.	-1.	71.	5.	260.	0.	.0001	.0000	.0000	.0000	-.0000	.0000

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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS

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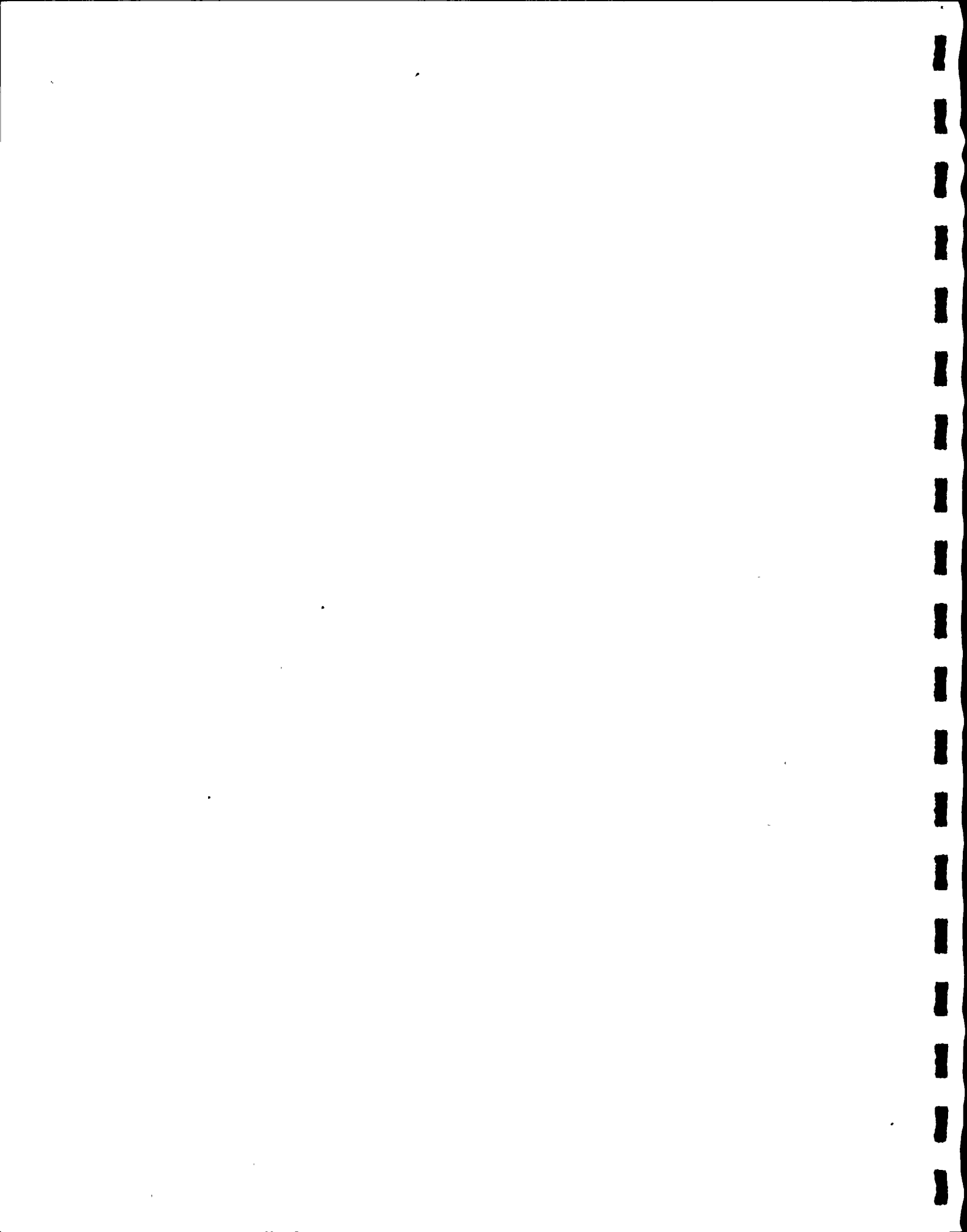
ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

SC	HE	SEQ	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	235	END	-1.	21.	71.	-22.	285.	0.	.0000	.0000	.0000	.0000	-.0000	.0000
23	4	240	END	-1.	-1.	71.	-49.	310.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000
24	1	240	BEG	-3.	-0.	-61.	49.	-310.	0.	-.0000	-.0000	.0000	.0000	-.0000	.0000
24	1	245	END	3.	0.	61.	-32.	207.	0.	-.0000	-.0000	.0000	-.0000	-.0000	.0000
24	2	250	END	3.	0.	61.	-16.	103.	0.	-.0000	-.0000	.0000	-.0000	.0000	.0000
24	3	255	DIS	0.	0.	0.	0.	0.	0.	.0000	0.0000	.0000	-.0000	.0000	.0000
24	3	255	END	3.	0.	61.	0.	-0.	0.	.0000	0.0000	.0000	-.0000	.0000	.0000

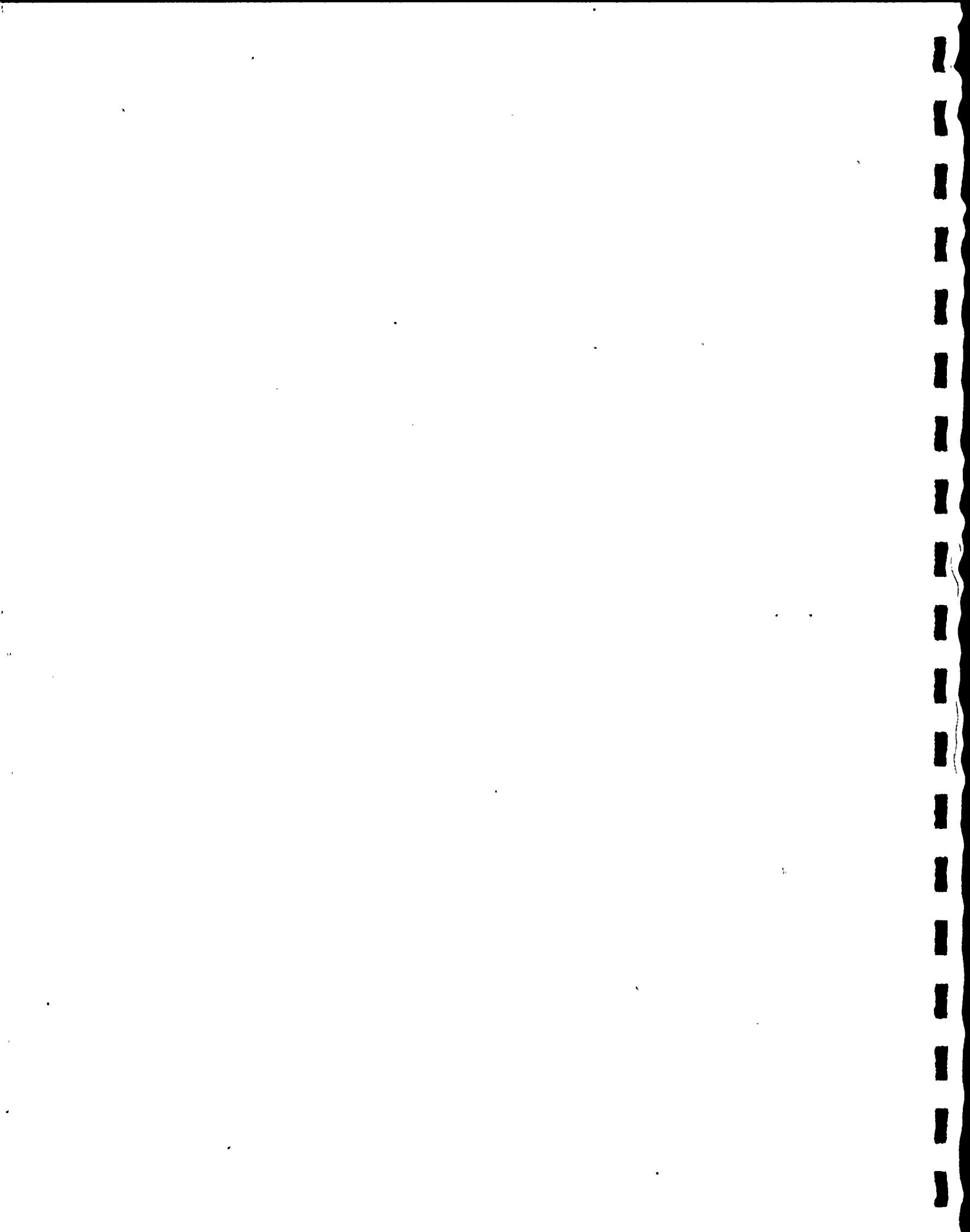
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ARTHUR D. LITTLE INC.
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE STRESS ANALYSIS



NET PT SEQ		NETWORK POINT REACTIONS AND DEFLECTIONS											
		FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	98.	95.	-111.	-361.	2802.	3341.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	-45.	-1.	21.	0.	0.	0.	-0.0001	-0.0000	.0000	-0.0000	-0.0000	-0.0000
3	20	-61.	-1.	38.	0.	0.	-0.	-0.0001	-0.0000	.0001	-0.0000	-0.0000	.0000
4	30	-35.	-4.	42.	-0.	0.	-0.	-0.0000	-0.0000	.0001	.0000	-0.0000	.0000
5	40	29.	-6.	-4.	-0.	-0.	-0.	.0000	-0.0000	-0.0000	.0000	.0000	.0000
6	50	85.	-12.	-64.	-0.	-0.	0.	.0001	-0.0000	-0.0001	.0000	.0000	-0.0000
7	57	-78.	-51.	3.	0.	0.	0.	-0.0000	-0.0000	.0000	-0.0000	.0000	-0.0000
8	70	-21.	-14.	78.	0.	-0.	-0.	-0.0000	-0.0000	.0001	-0.0000	.0000	.0000
9	85	-6.	7.	57.	-0.	-0.	0.	-0.0000	.0000	.0000	-0.0000	.0000	-0.0000
10	87	46.	-19.	-115.	5128.	-4756.	2404.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	100	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	107	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	115	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	125	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	135	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	150	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	155	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	167	-106.	8.	132.	-0.	0.	0.	-0.0001	.0000	.0001	-0.0000	-0.0000	-0.0000
20	175	-24.	-3.	-88.	0.	0.	-0.	-0.0001	-0.0000	-0.0003	-0.0000	-0.0000	.0000
21	190	27.	-2.	-35.	-0.	-0.	0.	.0001	-0.0000	-0.0002	.0000	.0000	-0.0000
22	205	37.	-2.	-29.	0.	-0.	-0.	.0003	-0.0000	-0.0002	.0000	-0.0000	.0000
23	220	55.	4.	4.	0.	0.	-0.	.0002	.0000	.0000	.0000	-0.0000	.0000
24	240	-3.	-1.	10.	-0.	0.	0.	-0.0000	-0.0000	.0000	.0000	-0.0000	.0000
25	255	3.	0.	61.	0.	-0.	0.	.0000	0.0000	.0000	-0.0000	.0000	.0000



ADLPIPE PAGE 79

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK
MCDE 20 FREQUENCY 46.93

NET PT SEQ	NETWORK POINT REACTIONS AND DEFLECTIONS			DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
	F _X (LB)	F _Y (LB)	F _Z (LB)						

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE PAGE 80

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK

MOIAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	1	5 BEG												
		SQ,RT,SUM OF SQ	4581.	5609.	5034.	185657.	487227.	348280.	0.000	0.000	0.000	0.0000	0.0000	0.0000
1	1	10 END												
		SQ,RT,SUM OF SQ	4581.	5609.	5034.	185477.	487012.	347725.	.000	.000	.000	.0000	.0000	.0000
1	2	10 BEG												
		SQ,RT,SUM OF SQ	4581.	5609.	5034.	185477.	487012.	347725.	.000	.000	.000	.0000	.0000	.0000
1	2	15 END												
		SQ,RT,SUM OF SQ	4581.	5609.	5034.	110057.	514873.	153381.	.019	.006	.008	.0003	.0005	.0002
2	1	15 BEG												
		SQ,RT,SUM OF SQ	4425.	5606.	4962.	110057.	514873.	153381.	.019	.006	.008	.0003	.0005	.0002
2	1	20 END												
		SQ,RT,SUM OF SQ	4425.	5606.	4962.	161748.	514873.	138206.	.024	.006	.014	.0003	.0006	.0002
3	1	20 BEG												
		SQ,RT,SUM OF SQ	3132.	5453.	3086.	101597.	170603.	144764.	.024	.006	.014	.0003	.0006	.0002
3	1	25 END												
		SQ,RT,SUM OF SQ	3132.	5453.	3086.	126695.	170603.	144356.	.032	.006	.024	.0003	.0006	.0002
3	2	25 BEG												
		SQ,RT,SUM OF SQ	3132.	5453.	3086.	126695.	170603.	144356.	.032	.006	.024	.0003	.0006	.0002
3	2	30 END												
		SQ,RT,SUM OF SQ	3132.	5453.	3086.	214224.	170603.	213449.	.039	.006	.034	.0002	.0005	.0002
4	1	30 BEG												
		SQ,RT,SUM OF SQ	2438.	5451.	2422.	214224.	170603.	213449.	.039	.006	.034	.0002	.0005	.0002
4	1	35 END												
		SQ,RT,SUM OF SQ	2438.	5451.	2422.	292907.	170603.	285043.	.046	.006	.042	.0002	.0005	.0002
4	2	35 BEG												
		SQ,RT,SUM OF SQ	2438.	5451.	2422.	292907.	170603.	285043.	.046	.006	.042	.0002	.0005	.0002
4	2	40 END												
		SQ,RT,SUM OF SQ	2438.	5451.	2422.	374905.	170603.	363294.	.051	.006	.049	.0002	.0005	.0001
5	1	40 BEG												
		SQ,RT,SUM OF SQ	1482.	5446.	1456.	374905.	170603.	363294.	.051	.006	.049	.0002	.0005	.0001
5	1	45 END												
		SQ,RT,SUM OF SQ	1482.	5446.	1456.	424205.	170603.	410834.	.054	.006	.053	.0001	.0004	.0001
5	2	45 BEG												
		SQ,RT,SUM OF SQ	1482.	5446.	1456.	424205.	170603.	410834.	.054	.006	.053	.0001	.0004	.0001

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 2 SHOCK

5 2 45 BEG
 SQ,RT,SUM CF SQ 1482. 5448. 1456. 474040. 170603. 459508. ,055 ,006 ,055 ,0000 ,0004 ,0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Z SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

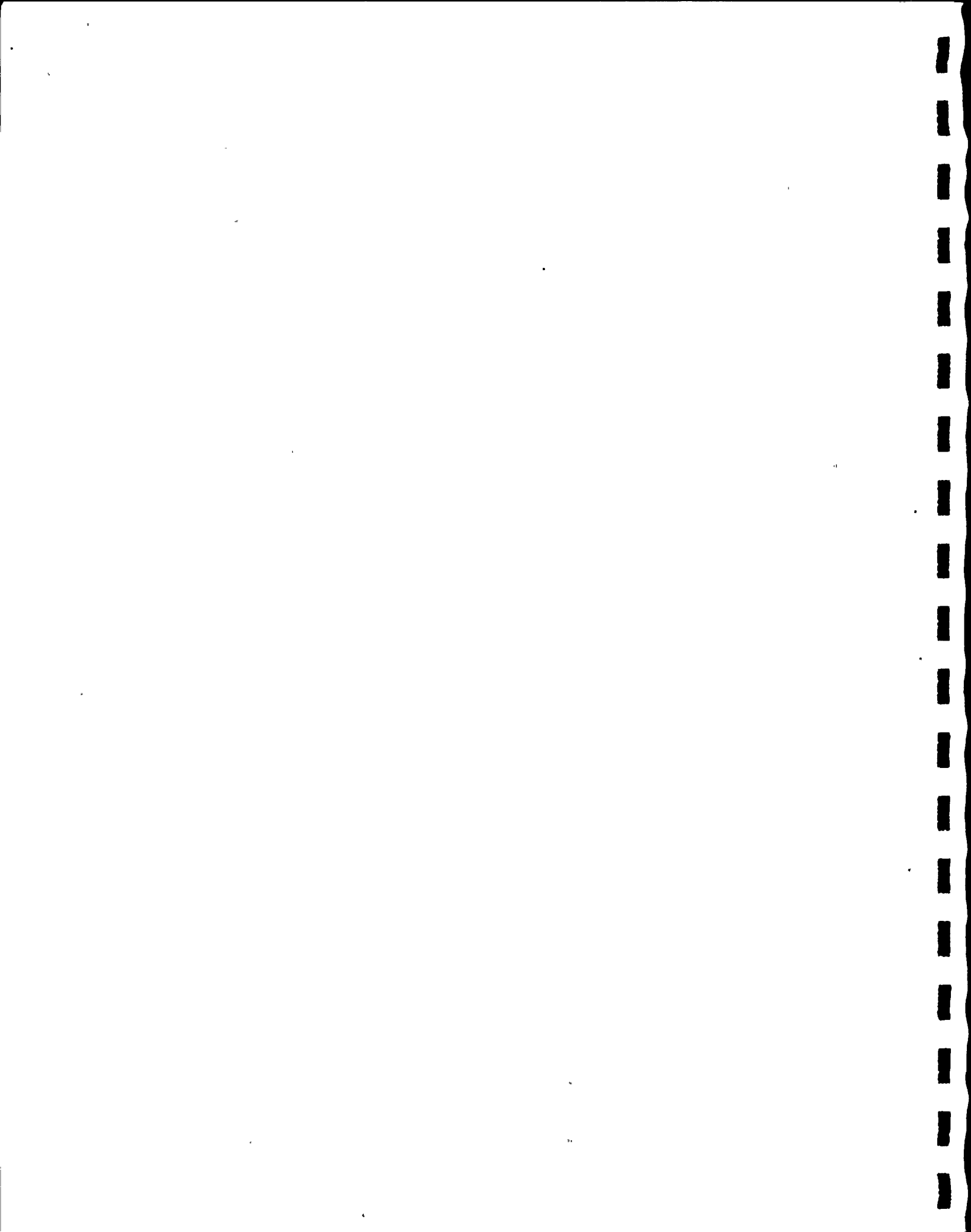
SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
5	2	50 END												
SQ,RT,SUM	CF	SQ	1482.	5448.	1456.	474040.	170603.	459508.	,055	,006	,055	,0000	,0004	,0000
6	1	50 BEG												
SQ,RT,SUM	CF	SQ	401.	5438.	307.	474040.	170603.	459508.	,055	,006	,055	,0000	,0004	,0000
6	1	55 END												
SQ,RT,SUM	CF	SQ	401.	5438.	307.	458718.	170603.	446316.	,051	,006	,052	,0001	,0004	,0001
6	2	55 BEG												
SQ,RT,SUM	CF	SQ	401.	5438.	307.	458718.	170603.	446316.	,051	,006	,052	,0001	,0004	,0001
6	2	57 END												
SQ,RT,SUM	CF	SQ	401.	5438.	307.	442388.	170603.	433081.	,040	,006	,043	,0002	,0004	,0002
7	1	57 BEG												
SQ,RT,SUM	CF	SQ	4248.	5422.	4649.	442388.	170603.	433081.	,040	,006	,043	,0002	,0004	,0002
7	1	60 END												
SQ,RT,SUM	CF	SQ	4248.	5422.	4649.	259177.	170603.	266970.	,031	,006	,035	,0002	,0003	,0003
7	2	60 BEG												
SQ,RT,SUM	CF	SQ	4248.	5422.	4649.	259177.	170603.	266970.	,031	,006	,035	,0002	,0003	,0003
7	2	65 END												
SQ,RT,SUM	CF	SQ	4248.	5422.	4649.	80654.	170603.	107942.	,020	,006	,025	,0003	,0003	,0003
7	3	65 BEG												
SQ,RT,SUM	CF	SQ	4248.	5422.	4649.	80654.	170603.	107942.	,020	,006	,025	,0003	,0003	,0003
7	3	70 END												
SQ,RT,SUM	CF	SQ	4248.	5422.	4649.	90951.	170603.	74240.	,011	,006	,016	,0003	,0003	,0003
8	1	70 BEG												
SQ,RT,SUM	CF	SQ	4499.	5419.	5035.	90951.	170603.	74240.	,011	,006	,016	,0003	,0003	,0003
8	1	75 END												
SQ,RT,SUM	CF	SQ	4499.	5419.	5035.	93743.	170603.	76058.	,010	,006	,016	,0003	,0003	,0003
8	2	75 BEG												
SQ,RT,SUM	CF	SQ	4499.	5419.	5035.	93743.	170603.	76058.	,010	,006	,016	,0003	,0003	,0003
8	2	80 END												
SQ,RT,SUM	CF	SQ	4499.	5419.	5035.	295133.	236296.	210064.	,000	,001	,001	,0000	,0000	,0000
8	3	80 BEG												
SQ,RT,SUM	CF	SQ	4499.	5419.	5035.	295133.	236296.	210064.	,000	,001	,001	,0000	,0000	,0000
8	3	85 END												
SQ,RT,SUM	CF	SQ	4499.	5419.	5035.	294870.	238523.	211196.	,000	,000	,001	,0000	,0000	,0000

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Z SHOCK

ADLPIPE PAGE 82
 ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 2 SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	MY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
9	1	85 BEG												
9	1	85 END												
9	1	86 BEG												
9	1	86 END												
9	2	86 BEG												
9	2	86 END												
9	2	87 BEG												
9	2	87 END												
10	1	87 BEG												
10	1	87 END												
10	1	88 BEG												
10	1	88 END												
10	2	88 BEG												
10	2	88 END												
10	2	90 BEG												
10	2	90 END												
11	1	90 BEG												
11	1	90 END												
11	1	95 BEG												
11	1	95 END												
11	2	95 BEG												
11	2	95 END												
11	2	100 BEG												
11	2	100 END												
12	1	100 BEG												
12	1	100 END												
12	1	105 BEG												
12	1	105 END												
12	2	105 BEG												
12	2	105 END												
12	2	107 BEG												
12	2	107 END												
13	1	107 BEG												
13	1	107 END												



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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Z SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
13	1	110 END												
13	2	110 BEG												
13	2	115 END												
14	1	115 BEG												
14	1	120 END												
14	2	120 BEG												
14	2	125 END												
15	1	125 BEG												
15	1	130 END												
15	2	130 BEG												
15	2	135 END												
16	1	135 BEG												
16	1	140 END												
16	2	140 BEG												
16	2	145 END												
16	3	145 BEG												
16	3	150 END												

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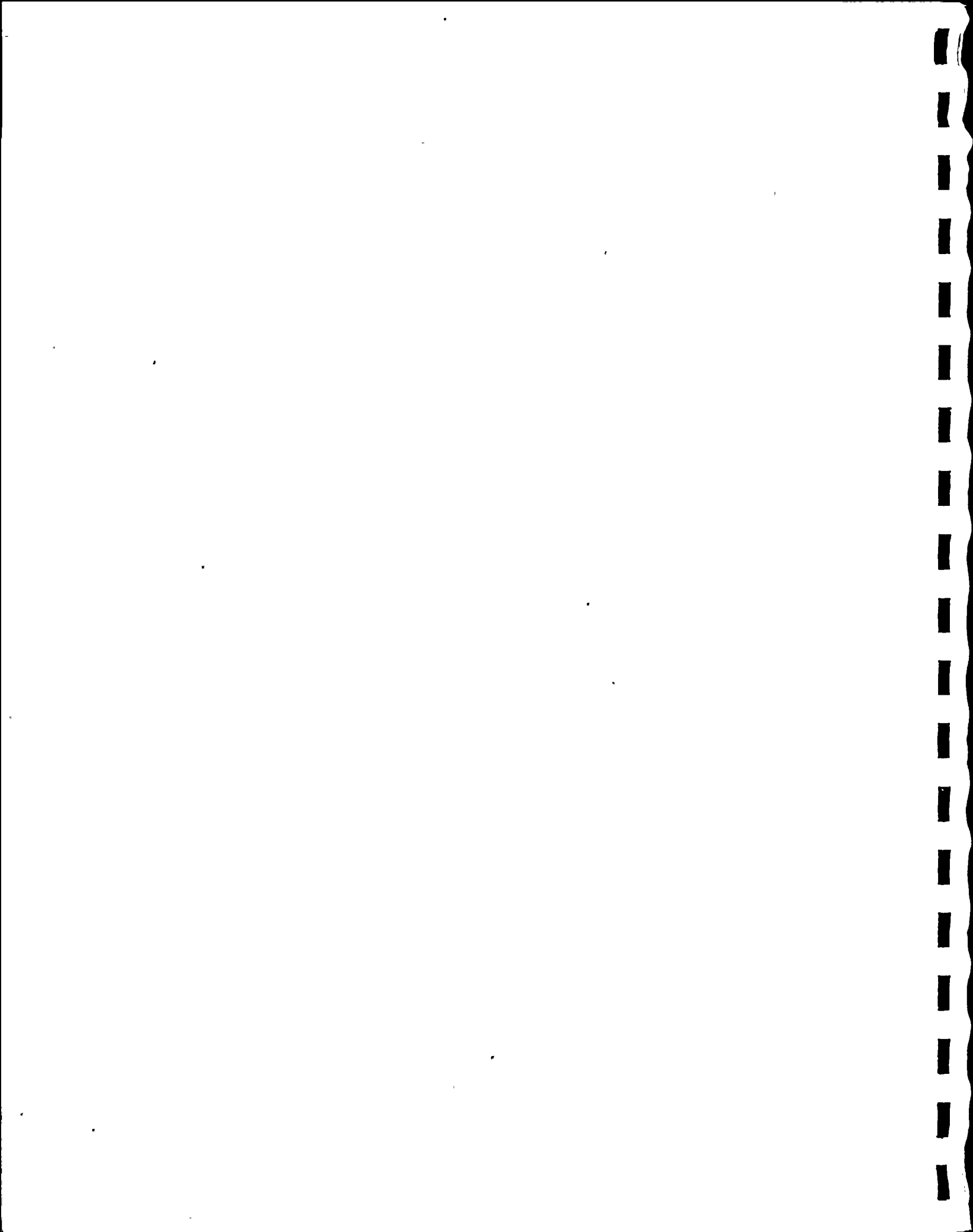
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Z SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	HX (IN-LB)	HY (IN-LB)	HZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
17	1	150	BEG											
	SQ,RT,SUM	OF SQ	1334.	1444.	1909.	97247.	48153.	62098.	.000	.000	.000	.0000	.0000	.0000
17	1	155	END											
	SQ,RT,SUM	OF SQ	1334.	1444.	1909.	140164.	92491.	87193.	.000	.000	.000	.0000	.0000	.0000
18	1	20	BEG											
	SQ,RT,SUM	OF SQ	1008.	295.	3592.	9708.	663528.	75681.	.024	.006	.014	.0003	.0006	.0002
18	1	160	END											
	SQ,RT,SUM	OF SQ	1008.	295.	3592.	9708.	553178.	67080.	.024	.003	.040	.0003	.0016	.0001
18	2	160	BEG											
	SQ,RT,SUM	OF SQ	1008.	295.	3592.	9708.	553178.	67080.	.024	.003	.040	.0003	.0016	.0001
18	2	165	END											
	SQ,RT,SUM	OF SQ	1008.	295.	3592.	9708.	443156.	58639.	.024	.005	.100	.0003	.0024	.0001
18	3	165	BEG											
	SQ,RT,SUM	OF SQ	1008.	295.	3592.	9708.	443156.	58639.	.024	.005	.100	.0003	.0024	.0001
18	3	167	END											
	SQ,RT,SUM	OF SQ	1008.	295.	3592.	9708.	300261.	47973.	.024	.006	.202	.0002	.0026	.0001
19	1	167	BEG											
	SQ,RT,SUM	OF SQ	513.	373.	3243.	9708.	300261.	47973.	.024	.006	.202	.0002	.0026	.0001
19	1	170	END											
	SQ,RT,SUM	OF SQ	513.	373.	3243.	9708.	170464.	33024.	.024	.008	.319	.0002	.0031	.0001
19	2	170	BEG											
	SQ,RT,SUM	OF SQ	513.	373.	3243.	9708.	170464.	33024.	.024	.008	.319	.0002	.0031	.0001
19	2	175	END											
	SQ,RT,SUM	OF SQ	513.	373.	3243.	9708.	42177.	18121.	.024	.012	.451	.0002	.0034	.0002
20	1	175	BEG											
	SQ,RT,SUM	OF SQ	403.	333.	3060.	9708.	42177.	18121.	.024	.012	.451	.0002	.0034	.0002
20	1	180	END											
	SQ,RT,SUM	OF SQ	403.	333.	3060.	9708.	83176.	4962.	.024	.019	.586	.0002	.0033	.0002
20	2	180	BEG											
	SQ,RT,SUM	OF SQ	403.	333.	3060.	9708.	83176.	4962.	.024	.019	.586	.0002	.0033	.0002
20	2	185	END											
	SQ,RT,SUM	OF SQ	403.	333.	3060.	9708.	141262.	2341.	.024	.023	.649	.0002	.0032	.0002
20	3	185	BEG											
	SQ,RT,SUM	OF SQ	403.	333.	3060.	9708.	141262.	2341.	.024	.023	.649	.0002	.0032	.0002

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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK
MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
20	3	190 END												
		SQ,RT,SUM OF SQ	403.	333.	3060.	8777.	204108.	9339.	.068	.028	.707	.0001	.0018	.0002
21	1	190 BEG												
		SQ,RT,SUM OF SQ	304.	207.	2839.	8777.	204108.	9339.	.068	.028	.707	.0001	.0018	.0002
21	1	195 END												
		SQ,RT,SUM OF SQ	304.	207.	2839.	8818.	204085.	9345.	.069	.028	.707	.0001	.0018	.0002
21	2	195 BEG												
		SQ,RT,SUM OF SQ	304.	207.	2839.	8818.	204085.	9345.	.069	.028	.707	.0001	.0018	.0002
21	2	200 END												
		SQ,RT,SUM OF SQ	304.	207.	2839.	8860.	204062.	9352.	.069	.028	.707	.0001	.0018	.0002
21	3	200 BEG												
		SQ,RT,SUM OF SQ	304.	207.	2839.	8860.	204062.	9352.	.069	.028	.707	.0001	.0018	.0002
21	3	205 END												
		SQ,RT,SUM OF SQ	304.	207.	2839.	12821.	143524.	5384.	.094	.025	.690	.0001	.0003	.0002
22	1	205 BEG												
		SQ,RT,SUM OF SQ	222.	128.	2689.	12821.	143524.	5384.	.094	.025	.690	.0001	.0003	.0002
22	1	210 END												
		SQ,RT,SUM OF SQ	222.	128.	2689.	12821.	115630.	4038.	.094	.023	.688	.0001	.0003	.0002
22	2	210 BEG												
		SQ,RT,SUM OF SQ	222.	128.	2689.	12821.	115630.	4038.	.094	.023	.688	.0001	.0003	.0002
22	2	215 END												
		SQ,RT,SUM OF SQ	222.	128.	2689.	12821.	87953.	2692.	.094	.021	.686	.0001	.0002	.0002
22	3	215 BEG												
		SQ,RT,SUM OF SQ	222.	128.	2689.	12821.	87953.	2692.	.094	.021	.686	.0001	.0002	.0002
22	3	220 END												
		SQ,RT,SUM OF SQ	222.	128.	2689.	14864.	35655.	0.	.091	.018	.686	.0000	.0002	.0002
23	1	220 BEG												
		SQ,RT,SUM OF SQ	119.	24.	2371.	14864.	35655.	0.	.091	.018	.686	.0000	.0002	.0002
23	1	225 END												
		SQ,RT,SUM OF SQ	119.	24.	2371.	14701.	34126.	0.	.087	.018	.686	.0000	.0003	.0002
23	2	225 BEG												
		SQ,RT,SUM OF SQ	119.	24.	2371.	14701.	34126.	0.	.087	.018	.686	.0000	.0003	.0002
23	2	230 END												
		SQ,RT,SUM OF SQ	119.	24.	2371.	14361.	30813.	0.	.077	.017	.687	.0000	.0003	.0002



23 2 230 END
 SQ,RT,SUM CF 119 24 2371. 14361 70813 0 .077 .017 .687 .0000 .0003 .0002

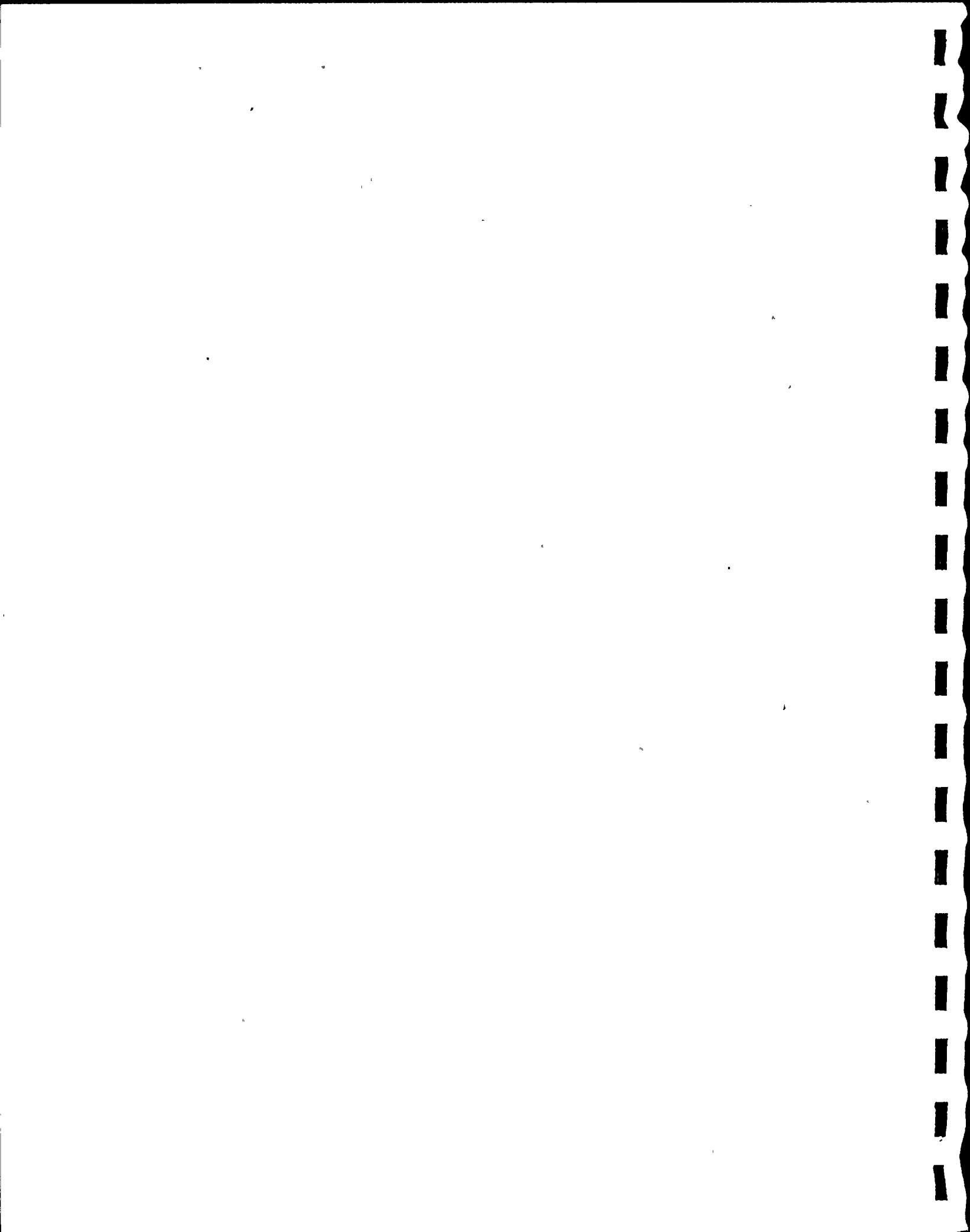
ADLPIPE PAGE 86
 ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
 NINE MILE POWER STAT MODEL 1 Z SHOCK
 MODAL FORCE, MOMENT, DEFLECTION, ROTATION SUMMARY, TOTAL NUMBER OF MODES 20

SEC	MEM	POS	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
23	3	230	BEG											
			SQ,RT,SUM OF SQ	119.	24.	2371.	14361.	70813.	0.	.077	.017	.687	.0000	.0003 .0002
23	3	235	END											
			SQ,RT,SUM OF SQ	119.	24.	2371.	14071.	27821.	0.	.064	.015	.687	.0001	.0004 .0002
23	4	235	BEG											
			SQ,RT,SUM OF SQ	119.	24.	2371.	14071.	27821.	0.	.064	.015	.687	.0001	.0004 .0002
23	4	240	END											
			SQ,RT,SUM OF SQ	119.	24.	2371.	13833.	25264.	0.	.050	.013	.687	.0001	.0004 .0002
24	1	240	BEG											
			SQ,RT,SUM OF SQ	225.	123.	1951.	13833.	25264.	0.	.050	.013	.687	.0001	.0004 .0002
24	1	245	END											
			SQ,RT,SUM OF SQ	225.	123.	1951.	9222.	16842.	0.	.034	.009	.687	.0001	.0004 .0002
24	2	245	BEG											
			SQ,RT,SUM OF SQ	225.	123.	1951.	9222.	16842.	0.	.034	.009	.687	.0001	.0004 .0002
24	2	250	END											
			SQ,RT,SUM OF SQ	225.	123.	1951.	4611.	8421.	0.	.017	.005	.687	.0001	.0005 .0002
24	3	250	BEG											
			SQ,RT,SUM OF SQ	225.	123.	1951.	4611.	8421.	0.	.017	.005	.687	.0001	.0005 .0002
24	3	255	DIS											
			SQ,RT,SUM OF SQ	0.	0.	0.	0.	0.	0.	.000	.000	.687	.0001	.0005 .0002
24	3	255	END											
			SQ,RT,SUM OF SQ	225.	123.	1951.	0.	0.	0.	.000	.000	.687	.0001	.0005 .0002

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT. MODEL 1 2 SHOCK

RMS MODAL SUMMARY
NETWORK POINT REACTIONS AND DEFLECTIONS

NET PT	SEQ	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
1	5	4581.	5609.	5034.	185657.	487227.	348280.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	15	163.	68.	105.	0.	0.	0.	.0193	.0061	.0061	.0003	.0005	.0002
3	20	307.	91.	241.	0.	0.	0.	.0238	.0061	.0141	.0003	.0006	.0002
4	30	703.	106.	670.	0.	0.	0.	.0393	.0061	.0337	.0002	.0005	.0002
5	40	973.	106.	974.	0.	0.	0.	.0511	.0061	.0486	.0002	.0005	.0001
6	50	1635.	161.	1681.	0.	0.	0.	.0552	.0061	.0552	.0000	.0004	.0000
7	57	4049.	542.	4410.	0.	0.	0.	.0405	.0061	.0435	.0002	.0004	.0002
8	70	259.	139.	394.	0.	0.	0.	.0106	.0060	.0162	.0003	.0003	.0003
9	85	40.	50.	80.	0.	0.	0.	.0004	.0005	.0007	.0000	.0000	.0000
10	87	5064.	5580.	5725.	126001.	415823.	342338.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	90	52.	31.	36.	0.	0.	0.	.0002	.0001	.0002	.0000	.0000	.0000
12	100	567.	311.	518.	0.	0.	0.	.0047	.0028	.0046	.0001	.0001	.0001
13	107	1375.	416.	1647.	0.	0.	0.	.0084	.0028	.0109	.0001	.0001	.0000
14	115	684.	170.	895.	0.	0.	0.	.0101	.0028	.0143	.0000	.0001	.0000
15	125	690.	199.	973.	0.	0.	0.	.0086	.0027	.0132	.0000	.0001	.0000
16	135	240.	200.	452.	0.	0.	0.	.0029	.0027	.0060	.0001	.0001	.0001
17	150	7.	23.	19.	0.	0.	0.	.0001	.0005	.0004	.0000	.0000	.0000
18	155	1334.	1444.	1909.	140164.	92491.	87193.	.0000	.0000	.0000	.0000	.0000	.0000
19	167	526.	174.	708.	0.	0.	0.	.0239	.0061	.2018	.0002	.0026	.0001
20	175	129.	46.	239.	0.	0.	0.	.0239	.0123	.4511	.0002	.0034	.0002
21	190	106.	128.	228.	0.	0.	0.	.0680	.0282	.7066	.0001	.0018	.0002
22	205	93.	81.	155.	0.	0.	0.	.0935	.0253	.6904	.0001	.0003	.0002
23	220	196.	126.	318.	0.	0.	0.	.0912	.0178	.6864	.0000	.0002	.0002
24	240	193.	120.	420.	0.	0.	0.	.0501	.0127	.6667	.0001	.0004	.0002
25	255	225.	123.	1951.	0.	0.	0.	.0000	.0000	.6870	.0001	.0005	.0002



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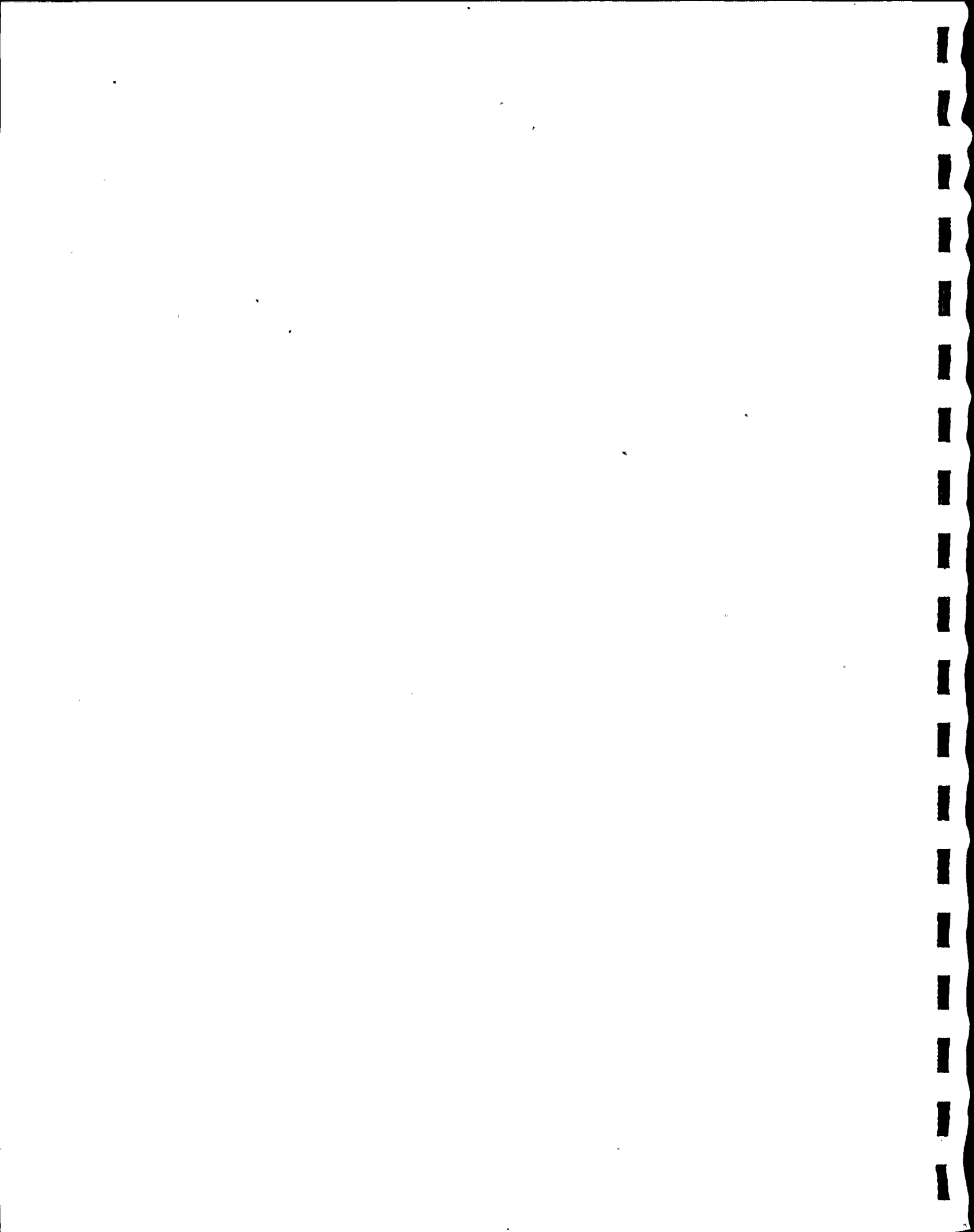
ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

RMS MODAL SUMMARY
NETWORK POINT REACTIONS AND DEFLECTIONS

NET PT SEQ	FX (LB)	FY (LB)	FZ (LB)	MX (IN-LB)	MY (IN-LB)	MZ (IN-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (RAD)	RY (RAD)	RZ (RAD)
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ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK



MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE.
USAS B31.1 STRESS SUMMARY

SEC	MEM	SEC	POS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
1	1	5	BEG	RU	328.4	864.8	1086.0	0.0	1.000	1.000
		10	END	RU	327.9	864.4	1085.1	0.0	1.000	1.000
1	2	10	BEG	EL	327.9	1908.7	2018.2	0.0	2.208	2.208
		15	END	EL	-445.9	722.0	1147.4	0.0	2.208	2.208
2	1	15	BEG	RU	-445.9	327.0	949.8	0.0	1.000	1.000
		20	END	RU	-445.9	297.2	940.0	0.0	1.000	1.000
3	1	20	BEG	RU	-147.7	306.3	425.6	0.0	1.000	1.000
		25	END	RU	-147.7	332.7	444.9	0.0	1.000	1.000
3	2	25	BEG	RU	-147.7	332.7	444.9	0.0	1.000	1.000
		30	END	RU	-147.7	523.8	601.4	0.0	1.000	1.000
4	1	30	BEG	RU	-147.7	523.8	601.4	0.0	1.000	1.000
		35	END	RU	-147.7	707.9	767.1	0.0	1.000	1.000
4	2	35	BEG	RU	-147.7	707.9	767.1	0.0	1.000	1.000
		40	END	RU	-147.7	904.2	951.2	0.0	1.000	1.000
5	1	40	BEG	RU	-147.7	904.2	951.2	0.0	1.000	1.000
		45	END	RU	-147.7	1022.8	1064.6	0.0	1.000	1.000
5	2	45	BEG	RU	-147.7	1022.8	1064.6	0.0	1.000	1.000
		50	END	RU	-147.7	1143.5	1181.0	0.0	1.000	1.000
6	1	50	BEG	RU	-147.7	1143.5	1181.0	0.0	1.000	1.000
		55	END	RU	-147.7	1108.5	1147.2	0.0	1.000	1.000
6	2	55	BEG	RU	-72.4	543.2	562.2	0.0	1.000	1.000
		57	END	RU	-72.4	525.5	545.1	0.0	1.000	1.000
7	1	57	BEG	RU	-147.7	1072.2	1112.2	0.0	1.000	1.000
		60	END	RU	-147.7	644.4	709.0	0.0	1.000	1.000
7	2	60	BEG	RU	-147.7	644.4	709.0	0.0	1.000	1.000
		65	END	RU	-147.7	233.4	376.5	0.0	1.000	1.000
7	3	65	BEG	RU	-147.7	233.4	376.5	0.0	1.000	1.000
		70	END	RU	-147.7	203.3	358.7	0.0	1.000	1.000

ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE.
USAS B31.1 STRESS SUMMARY

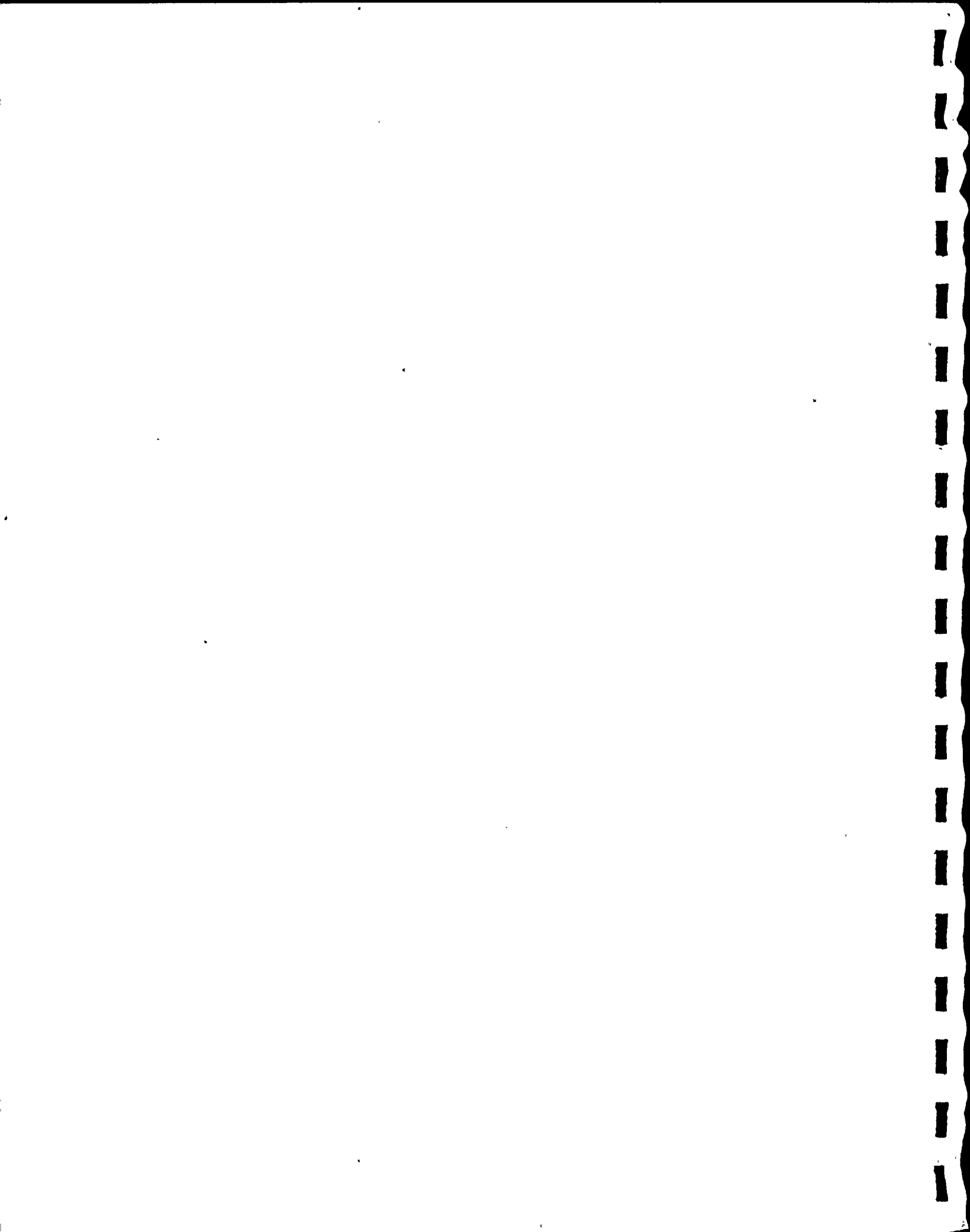
SEC	HEX	SEQ	PCS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS	
									IN PLANE	TRANSVERSE
8	1	70 BEG	RU		-147.7	203.3	358.7	0.0	1.000	1.000
		75 END	RU		-147.7	209.1	362.0	0.0	1.000	1.000
8	2	75 BEG	EL		-147.7	461.7	568.1	0.0	2.208	2.208
		80 END	EL		234.1	1291.1	1373.4	0.0	2.208	2.208
8	3	80 BEG	RU		234.1	584.7	749.1	0.0	1.000	1.000
		85 END	RU		233.6	588.8	751.9	0.0	1.000	1.000
9	1	85 BEG	RU		51.4	130.1	165.8	0.0	1.000	1.000
		86 END	RU		47.2	184.6	207.4	0.0	1.000	1.000
9	2	86 BEG	RU		47.2	184.6	207.4	0.0	1.000	1.000
		87 END	RU		67.7	130.8	168.3	0.0	1.000	1.000
10	1	87 BEG	RU		23.3	83.6	95.8	0.0	1.000	1.000
		88 END	RU		25.2	65.4	82.5	0.0	1.000	1.000
10	2	88 BEG	RU		25.2	65.4	82.5	0.0	1.000	1.000
		90 END	RU		-12.6	54.7	60.2	0.0	1.000	1.000
11	1	90 BEG	RU		-57.2	248.0	273.1	0.0	1.000	1.000
		95 END	RU		-57.3	246.1	271.5	0.0	1.000	1.000
11	2	95 BEG	EL		-57.3	543.4	555.4	0.0	2.208	2.208
		100 END	EL		25.2	133.4	142.6	0.0	2.208	2.208
12	1	100 BEG	RU		25.2	60.4	78.6	0.0	1.000	1.000
		105 END	RU		25.2	122.9	132.8	0.0	1.000	1.000
12	2	105 BEG	RU		12.3	60.2	65.1	0.0	1.000	1.000
		107 END	RU		12.3	182.4	184.0	0.0	1.000	1.000
13	1	107 BEG	RU		25.2	372.1	375.5	0.0	1.000	1.000
		110 END	RU		25.2	403.4	406.5	0.0	1.000	1.000
13	2	110 BEG	RU		25.2	403.4	406.5	0.0	1.000	1.000
		115 END	RU		25.2	434.7	437.6	0.0	1.000	1.000
14	1	115 BEG	RU		25.2	434.7	437.6	0.0	1.000	1.000
		120 END	RU		25.2	397.1	400.2	0.0	1.000	1.000
14	2	120 BEG	RU		25.2	397.1	400.2	0.0	1.000	1.000
		125 END	RU		25.2	359.5	363.0	0.0	1.000	1.000



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE,
USAS B31.1 STRESS SUMMARY

SEC	MEM	SEQ	POS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS IN PLANE	TRANSVERSE
15	1	125	BEG	RU	25.2	359.5	363.0	0.0	1.000	1.000
		130	END	RU	25.2	210.5	216.5	0.0	1.000	1.000
15	2	130	BEG	RU	25.2	210.5	216.5	0.0	1.000	1.000
		135	END	RU	25.2	67.6	84.3	0.0	1.000	1.000
16	1	135	BEG	RU	25.2	67.6	84.3	0.0	1.000	1.000
		140	END	RU	25.2	35.7	61.7	0.0	1.000	1.000
16	2	140	BEG	EL	25.2	78.8	93.5	0.0	2.208	2.208
		145	END	EL	-86.2	283.1	331.4	0.0	2.208	2.208
16	3	145	BEG	RU	-86.2	128.2	214.8	0.0	1.000	1.000
		150	END	RU	-86.7	129.7	216.5	0.0	1.000	1.000
17	1	150	BEG	RU	-86.7	129.7	216.5	0.0	1.000	1.000
		155	END	RU	-119.0	225.4	327.7	0.0	1.000	1.000
18	1	20	BEG	RU	-49.3	6778.8	6779.6	0.0	1.000	1.000
		160	END	RU	-49.3	5656.2	5657.1	0.0	1.000	1.000
18	2	160	BEG	RU	-49.3	5656.2	5657.1	0.0	1.000	1.000
		165	END	RU	-49.3	4537.5	4538.6	0.0	1.000	1.000
18	3	165	BEG	RU	-19.2	1769.6	1770.0	0.0	1.000	1.000
		167	END	RU	-19.2	1203.7	1204.3	0.0	1.000	1.000
19	1	167	BEG	RU	-49.3	3086.5	3088.0	0.0	1.000	1.000
		170	END	RU	-49.3	1762.5	1765.2	0.0	1.000	1.000
19	2	170	BEG	RU	-49.3	1762.5	1765.2	0.0	1.000	1.000
		175	END	RU	-49.3	466.0	476.3	0.0	1.000	1.000
20	1	175	BEG	RU	-49.3	466.0	476.3	0.0	1.000	1.000
		180	END	RU	-49.3	845.8	851.5	0.0	1.000	1.000
20	2	180	BEG	RU	-49.3	845.8	851.5	0.0	1.000	1.000
		185	END	RU	-49.3	1434.1	1437.5	0.0	1.000	1.000
20	3	185	BEG	EL	-49.3	2548.3	2550.2	0.0	1.777	1.777
		190	END	EL	121.1	3663.6	3671.6	0.0	1.777	1.777
21	1	190	BEG	RU	118.6	2062.3	2075.9	0.0	1.000	1.000
		195	END	RU	118.6	2062.1	2075.2	0.0	1.000	1.000



ARTHUR D. LITTLE INC. ADLPIPE STRESS ANALYSIS
NINE MILE POWER STAT MODEL 1 Z SHOCK

MODAL STRESS SUMMARY, TOTAL NUMBER OF MODES 20
BENDING MOMENTS ARE SQUARE ROOT SUM OF THE SQUARE.
USAS 831.1 STRESS SUMMARY

SEC	MEM	SEQ	PCS	TYPE	TORSION	BENDING	COMBINED	PRESSURE	INTENSIFICATION FACTORS IN PLANE	TRANSVERSE
21	2	195	BEG	RU	119.6	2062.1	2075.7	0.0	1.000	1.000
		200	END	RU	121.3	2061.3	2075.5	0.0	1.000	1.000
21	3	200	BEG	EL	121.3	3662.8	3670.8	0.0	1.777	1.777
		205	END	EL	65.1	2590.6	2593.9	0.0	1.777	1.777
22	1	205	BEG	RU	65.1	1457.9	1463.7	0.0	1.000	1.000
		210	END	RU	65.1	1174.4	1181.6	0.0	1.000	1.000
22	2	210	BEG	RU	65.1	1174.4	1181.6	0.0	1.000	1.000
		215	END	RU	65.1	893.2	902.6	0.0	1.000	1.000
22	3	215	BEG	EL	65.1	1587.2	1592.5	0.0	1.777	1.777
		220	END	EL	.0	696.8	696.8	0.0	1.777	1.777
23	1	220	BEG	RU	.0	392.1	392.1	0.0	1.000	1.000
		225	END	RU	.0	377.2	377.2	0.0	1.000	1.000
23	2	225	BEG	RU	.0	377.2	377.2	0.0	1.000	1.000
		230	END	RU	.0	345.1	345.1	0.0	1.000	1.000
23	3	230	BEG	RU	.0	345.1	345.1	0.0	1.000	1.000
		235	END	RU	.0	316.5	316.5	0.0	1.000	1.000
23	4	235	BEG	RU	.0	316.5	316.5	0.0	1.000	1.000
		240	END	RU	.0	292.4	292.4	0.0	1.000	1.000
24	1	240	BEG	RU	.0	292.4	292.4	0.0	1.000	1.000
		245	END	RU	.0	194.9	194.9	0.0	1.000	1.000
24	2	245	BEG	RU	.0	194.9	194.9	0.0	1.000	1.000
		250	END	RU	.0	97.5	97.5	0.0	1.000	1.000
24	3	250	BEG	RU	.0	97.5	97.5	0.0	1.000	1.000
		255	END	RU	.0	.0	.0	0.0	1.000	1.000

END OF RUN.

UNIPOST V2.1 INPUT DIRECTIVES

INCR=0.005*SURFACE=60.36.*SCALE=1.0*DRA
NEXT DIRECTIVE

*** DRA IS AN INVALID DIRECTIVE

MM,MM,SS CPU SECONDS ORIGIN

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07.00.24.TCA. JE TCA SCCPE 3.4.3 406F.102 02/12/79
07.01.43 00000.006 TCZ. -SDW3245,T2000,P4,STTCZ.
07.01.43 00000.006 TCZ. CYB02 - JCB NAME- SDW321M
07.01.43 00000.007 JCB. -ACCOUNT(B2305*176,ADLPIPE)
07.01.43 00000.034 JCB. -STAGE(TAPE14,POST,MT,H1,)
07.01.43 00000.037 JCB. -MAP(GFF)
07.01.43 00000.039 JCB. -ATTACH(ADLPIPE,ADLPIPEJUL,ID=APPLIC,MR=1)
07.01.44 00000.043 TCZ. PF254 - CYCLE 1 ATTACHED FROM SN=SYSTEM
07.01.44 00000.044 JCB. -ATTACH(UNIPLCT,UNIPLCT,ID=APPLIC)
07.01.44 00000.047 TCZ. PF254 - CYCLE 1 ATTACHED FROM SN=SYSTEM
07.01.44 00000.048 JCB. -ATTACH(UNIPCT,UNIPCT,ID=APPLIC)
07.01.44 00000.052 TCZ. PF254 - CYCLE 1 ATTACHED FROM SN=SYSTEM
07.01.44 00000.052 JCB. -LIBRARY(UNIPLCT)
07.01.44 00000.060 JCB. -FILE(TAPE99,RT=Z,FL=140.)
07.01.44 00000.061 LCD. -ADLPIPE.
07.01.51 00001.362 TCZ. LD605 - ABSOLUTE FILE WRITTEN OS.COG
07.01.51 00001.362 TCZ. LD610 - FLS REQUIRED TO LOAD - 0016454 OS.OVGX
07.01.52 00001.399 USR. FORTRAN LIBRARY 433 05/11/77
07.01.55 00002.965 USR. $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
07.01.55 00002.966 USR. $
07.01.55 00002.966 USR. $ UNIPLOT V2.1 PLOT ROUTINES $
07.01.55 00002.966 USR. $ FILE NAME = NPFIL $
07.01.55 00002.966 USR. $ $
07.01.55 00002.967 USR. $ NPF V2.1 INCH $
07.01.55 00002.967 USR. $
07.01.55 00002.967 USR. $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
07.03.03 00029.495 USR. EXIT
07.03.03 00029.496 USR. 28.095 CP SECONDS EXECUTION TIME
07.03.03 00029.496 TCZ. JMD43 - JCB REPRIEVED
07.03.03 00029.497 LCD. -REWIND(TAPE99)
07.03.03 00029.503 LCD. -COPY(TAPE99,NPFIL)
07.03.03 00029.511 USR. UT031 - ECI ENCOUNTERED
07.03.03 00029.512 USR. UT035 - BOR - 0 ECS - 0 ECF - 1
07.03.03 00029.512 LCD. -REWIND(NPFIL)
07.03.03 00029.518 LCD. -UNIPCT(D=CCPEQCC,I)
07.03.03 00029.524 USR. FORTRAN LIBRARY 433 05/11/77
07.03.03 00029.525 USR. $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
07.03.03 00029.525 USR. $
07.03.03 00029.525 USR. $ UNIPCT V2.1 POST PROCESSOR $
07.03.03 00029.527 USR. $ $
07.03.03 00029.527 USR. $ NPF V2.1 INCH $
07.03.03 00029.527 USR. $
07.03.03 00029.527 USR. $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
07.03.03 00029.528 USR. $
07.03.03 00029.528 USR. $ NPFIL NAME = NPFIL $
07.03.03 00029.528 USR. $ PLOT FILE NAME = PLOT $
07.03.03 00029.528 USR. $ $
07.03.04 00029.662 USR. $ $
07.03.04 00029.662 USR. $ PICTURES = 4 $
07.03.04 00029.662 USR. $
07.03.04 00029.663 USR. $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
07.03.04 00029.664 USR. STOP
07.03.04 00029.664 USR. .139 CP SECONDS EXECUTION TIME
07.03.04 00029.664 TCZ. JMD43 - JCB REPRIEVED
07.03.04 00029.665 LCD. -REWIND(PLOT)
07.03.04 00029.671 JCB. -DISPCTE(PLCT,PT)
07.03.04 00029.672 TCZ. CYB01 - FILE PLOT DC=30 ST=TCAIJE SIZE=0000000010 ICDB
07.03.05 00029.672 JCB. -NDFIL(2)
07.03.05 00029.673 JCB. -EXIT(S)
07.03.05 00029.673 TCZ. CYB01 - FILE SDW321M DC=04 ST=TCAIJE SIZE=0000000010 ICDB
07.03.05 00029.678 TCZ. CYB01 - FILE OUTPUT DC=40 ST=TCAIJE SIZE=0000001005 ICDB
07.03.05 00029.678 TCZ. RM770 - MAXIMUM ACTIVE FILES 14
07.03.05 00029.679 TCZ. RM771 - OPEN/CLOSE CALLS 195
07.03.05 00029.679 TCZ. RM772 - DATA TRANSFER CALLS 59,819
07.03.05 00029.679 TCZ. RM773 - CONTROL/POSITIONING CALLS 1,022
07.03.05 00029.679 TCZ. RM774 - BM DATA TRANSFER CALLS 13,601
07.03.05 00029.679 TCZ. RM775 - BM CONTROL/POSITIONING CALLS 344
07.03.05 00029.679 TCZ. RM776 - CLEVE MANAGER CALLS 2,490

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07.03.05 00029.678 TCZ.
07.03.05 00029.679 TCZ.
07.03.05 00029.679 TCZ.
07.03.05 00029.679 TCZ.
07.03.05 00029.679 TCZ.
07.03.05 00029.679 TCZ.
07.03.05 00029.680 TCZ.
07.03.05 00029.681 TCZ.
07.03.05 00029.681 TCZ.

CY801 - FILE OUTPUT DC=80 SY=ICATJE SIZE=0000000010 ICOR
RM771 - MAX ACTI LES 195
RM771 - OPEN/CLOSE CALLS 59,819
RM772 - DATA TRANSFER CALLS 1,022
RM773 - CONTROL/POSITIONING CALLS 13,601
RM774 - BY DATA TRANSFER CALLS 344
RM775 - BY CONTROL/POSITIONING CALLS 2,490
RM776 - CLEUP MANAGER CALLS 1,548
RM777 - RECALL CALLS 106
SHU 106
SC053 - JOB PRIORITY - Pa

