February, 1966

DISTRIBUTION

External:

H. F. Faught (Please distribute as follows):

10 copies to AGC
3 copies to SNPO-C
1 copy to the attention of W. Greenhow, AGC
1 copy to the attention of E. Miller, SNPO-C
5 copies to C. Tallman, LASL

Internal:

H. Blinn
J. Coombe
W. Henderson
W. Jacobi
E. Layland
P. Levine
E. Llewellyn (5)
J. McGuffin
H. Perkins
F. Spurrier
G. R. Thomas
Library (2)
File (1)

MASTER

NOTICE

This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the United States Energy Research and Development Administration, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights.

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency Thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

DATA REPORT

STRUCTURAL MATERIALS EXPERIMENT 37/LA001

IRRADIATED AT PLUM BROOK REACTOR FACILITY, PBRF CYCLE 42

Prepared by:

Radiation Test Programs

Approved by:

J. Coombe

INFORMATION CATEGORY

- Authorized Classifier Date

Westinghouse Electric Corporation
Astronuclear Laboratory
Pittsburgh, Pa. 15236

DISTRIBUTION OF THIS DOCUMENT UNLIMITED

TABLE OF CONTENTS

	<u>Page No.</u>
1.0 INTRODUCTION	1
2.0 TEST HISTORY	1
3.0 DESCRIPTION OF TEST	3
3.1 Description of Test Specimens	3
3.2 Description of Test Fixture	10
3.3 Test Procedure	13
APPENDIX I SYSTEM DATA SHEETS	14

LIST OF FIGURES AND ILLUSTRATIONS

		<u>Page No.</u>
Figure 1	Test Fixture with Specimens for Test 37/LA001	4
Figure 2	Braze Tensile Specimen for Experiment 37/LA001	5
Figure 3	Braze Shear Specimen for Experiment 37/LA001	6
Figure 4	7039-T61 Aluminum Plain Tensile Specimen	7
Figure 5	7039-T61 Aluminum Notched Tensile Specimen	8
Figure 6	Graphite Specimens in Aluminum Capsule	9
Figure 7	Specimen Positions	11
Figure 8	Sample Fixture for Experiment 37/LA001, Shear Tensile and Graphite Materials Test (WANL Drawing 576F553)	12
Figure 9	Dosimeter Set (WANL Drawing 387D519)	14

1.0 INTRODUCTION

This report includes the irradiation history of Experiment No. 37/LA001. This experiment is sponsored by the Los Alamos Scientific Laboratory. The experiment consists of 19 brazed tensile specimens, 15 brazed shear specimens, and 2 capsules of graphite thermal conductivity specimens. These materials are being evaluated for their potential use in reactor core structural brazed joints for the Phoebus reactor.

2.0 TEST HISTORY

Test 37/LA001 was defined as a joint task of LASL and WANL by the Space Nuclear Propulsion Office - Cleveland. The design and fabrication of the test fixture and the supply of the test specimens was a LASL responsibility. WANL responsibilities included assembling the test fixture with the test specimens, attaching it to the experiment holder compatible with the charging machine for HT-1, testing the fixture in the WANL "mock-up" loop, which subjects the experiment to the environment of the HT-1 facility of the Plum Brook reactor except for nuclear conditions, providing the required assistance in obtaining approval of the Design Manual and Hazards Analysis, shipping the experiment to Plum Brook, irradiating it in HT-1 for a 10-day period, and providing for post-irradiation examinations.

On April 9, 1965, a one-hour test was conducted in the "mock-up" loop at HT-1 non-nuclear conditions using the LASL fixture and dummy specimens. The fixture demonstrated about a 1-1/2 psi pressure drop and was considered adequate.

Plum Brook Project Engineering, concerned about the possibility of silver or gold activity from the brazes being allowed to enter the primary coolant water, specified that WANL prove that this could not happen. An extensive investigation was carried out by WANL on this subject* resulting in the recommendation of a 1 to 2 mil plating of nickel over the braze with certain procedures to be followed. These were communicated to LASL, which resulted in the decision to plate the tensile specimens, and "can" the shear specimens in a thin aluminum envelope. However, due to difficulties associated with maintaining the integrity of the aluminum envelope, because of the sharp corners on the specimens, it was subsequently decided to plate all the braze specimens. In this interim, due to vendor difficulties, the materials specimens were changed, resulting in the requirement for another activation analysis. The specimens were shipped to WANL November 18, 1965. The specimens were checked with a "Spot Check" kit, as requested by Plum Brook for plating porosity, were assembled into the fixture, thermocouples tied in, dosimetry attached and the fixture assembled to the experiment support equipment. The complete experiment assembly was packaged and shipped to Plum Brook by WANL carrier on November 24, 1965. The insertion of the experiment was started at 0221 on January 4, 1966, and was fully inserted in HT-1 at 0234, while the Plum Brook reactor was operating at full power of 60 Mw. The system data sheets for this experiment are included in this report as Appendix I. The removal of the experiment was started at 0303 on January 14, 1966, and was fully removed from HT-1 at 0315. At this time provisions are being made to ship the specimens to LASL for post-irradiation examination as requested.

*Letter from F. D. Seaman to J. Coombe, June 22, 1965.

3.0 DESCRIPTION OF TEST

3.1 Description of Test Specimens

An overall view showing the specimens contained in the test fixture with the shroud and cone removed is shown in Figure 1. The geometry of the brazed tensile specimens is shown in Figure 2, and the geometry of the brazed shear specimens is shown in Figure 3. Figures 4 and 5 represent the aluminum tensile specimens. Figure 6 shows the graphite specimens in their aluminum container. Table 1 lists the specimens tested.

TABLE 1

<u>Quantity</u>	<u>Type</u>	<u>Material</u>	<u>Braze</u>
8	Tensile	Inconel 718	Palniro 1
8	Tensile	Inconel 718	Palniro 7
3	Tensile	7039-T61 Aluminum	---
4	Shear	Inconel 718	Palniro 1
4	Shear	Inconel 718	Palniro 7
3	Shear	Inconel 718	Prema Braze 130
4	Shear	347 Stainless Steel	AMS 4772
2	Capsules of graphite specimens for post-irradiation thermal conductivity measurements.		

Figure 1. Test Fixture with Specimens for Test 37/LA001

BLANK

Figure 3. Braze Shear Specimen for Experiment 37/LA001

Figure 4. 7039-T61 Aluminum Plain Tensile Specimen

- Notes: (1) Material 7039-T61 Aluminum Welded at Notches with 1495 Filler Wire
- (2) Surfaces Marked (A) Must be True to Center Line of Holes Within .0005" TIR

Figure 5. 7039-T61 Aluminum Notched Tensile Specimen

Notes:

1. Material: Aluminum 6061-T6
2. ~~63~~ All Over
3. Break All Sharp Edges

Pellet Length "L"	Material
3/8	Graphite "G"
3/8	Graphite HLM
1/8	Pyro-Graphite
1/8	Grafoil

Figure 6. Graphite Specimens in Aluminum Capsule

The specimens were checked for plating porosity at WANL using a "Spot Check" kit. No indication of gold or silver penetration of the plating could be found. The specimens were then mounted in the fixture as in Figure 7. During the installation of the specimens into the fixture, one shear specimen was inadvertently bent when it did not fit into the milled slot of the plate when the securing plate was installed. This shear specimen was numbered 10-4. This specimen was straightened and reinstalled.

3.2 Description of Test Fixture

A drawing of the sample fixture is shown in Figure 8. The material test specimens are housed in the standard experiment aluminum shroud and aluminum end cones. An inner cage supported within holds the specimens in a circular symmetrical fashion. One group of 18 specimens is supported by resting both ends of a specimen in a milled slot in each of the two holding plates. The slots are radially oriented so that the specimens are located on 20-degree angular increments equally spacing the 18 specimens around the cylindrical cage on a mean radius of 1.437 inch. Both ends of the specimen are captured by this means so that they cannot be removed without first removing the end plate on the inlet water side. The remaining plate is secured through the center tie bolt and nuts.

The other group of 18 specimens is similarly supported. Again the threaded portion of the specimen is supported in a bottomed hold in the holding plate, and the inlet side is also supported in a retaining plate with the bottomed holes which capture each end of the specimen. The retaining plate is also secured using the tie bolt and nuts. The

Figure 7. Specimen Positions

**Figure 8. Sample Fixture for Experiment 37/LA00I,
Shear Tensile and Graphite Materials Test
(WANL Drawing 576F553)**

specimens are arranged around the periphery with 20-degree incremental spacing for the 18 specimens. These specimens are on a mean radius of 2.438 inches.

The assembly was designed for minimum flow pressure drop through the fixture by providing cooling water passages between specimens and in the retaining plates. This procedure maximizes the cooling and also uses the minimum of fixture material, which reduces the total heat generated.

The design also allows remote disassembly to be accomplished by removing the outer screws, allowing the inside specimen cage to be lifted out of the shroud. The nut retaining the end plate is removed, and this allows the shear specimens to be removed by simply lifting the specimens. After removing the shear specimens, the second inside retaining plate is removed and the tensile specimens are then lifted out.

Four dosimeters, mounted 90 degrees apart on the test fixture, will serve to determine the neutron dose received by the test items. A dosimeter is shown on WANL Drawing 387D519 presented herein as Figure 9. The dosimeter evaluation is not available at this time. When this evaluation is available, it will be published as an addendum to this report. The only other instrumentation required for the test consisted of four thermocouples to monitor the test fixture temperature during operation.

3.3 TEST PROCEDURE

The test procedure involved fully inserting the fixture into HT-1 and then monitoring the thermocouples. No difficulty was experienced in the operating procedure as evidenced by system data sheets included as Appendix I.

REVISIONS			
REV	DATE	DESCRIPTION	APPROVED
B	8/14/64	REDESIGNED & REDRAWN D SPEC 751323-AR RJN 8/13/64	W. J. Coombe
C	8/25/64	CHANGED SPACER 1" X 4" FROM AL. FOIL 1100-F TO AL. WIRE 1100-H18. D SPEC 751323-CG KDS 2-25-65	W. J. Coombe
D	8/25/64	B-2 DELETED QUARTZ COVERED FROM DESCRIPTION OF ITEM 7 IN LIST OF MATERIALS D-4 CHANGED PICTURE OF ITEM 7 D SPEC 751323-CH R.F. W. 3-4-65	W. J. Coombe

- ▶ PURCHASE FROM WILLIAMS & CO. PITTSBURGH, PA. OR APPROVED EQUAL.
- ▶ NUCLEAR SCIENCE & ENGR CORR PITTSBURGH 36, PA OR APPROVED EQUAL. COMPLETE S-1 KIT.

1	7	WIRE (CADMIUM COVERED)	387D519H07DIAL COL BAL					
1	6	PELLET (QUARTZ COVERED)	387D519H06SULFUR					
1	5	WIRE (QUARTZ COVERED)	387D519H05AL COL BAL					
4	4	WIRE SPACER (150X .114)	387D519H04SST	AL	1100-H18			
AR	3	WIRE (CSDA)	387D519H03B	SST	3/16			
2	2	END SCREW	387D519H02B	AL	6061-T6			
1	1	TUBE	387D519H01B	AL	6061-T6			
GOI								
QTY REQD	QTY	ITEM NO.	MANUFACTURER OR DESCRIPTION	PART OR IDENTIFYING NO.	MATERIAL	SPECIFICATION	UNIT	ZONE

LIST OF MATERIALS								
NEUSOM			DATE	10-7-63	WESTINGHOUSE ELECTRIC CORPORATION	Astronuclear Laboratory PITTSBURGH, PA.		
J. W. COOMBE			DATE	10-7-63	DC TUBES	CAPSULE DOSIMETER ARR. FOR BBRF & NSEC (WANL)		
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			
J. W. COOMBE			DATE	10-7-63	ALUMINUM & S.S.			

APPENDIX I

SYSTEM DATA SHEETS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW	OUTLET FLOW	HTI PRESS	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	HTI INLET TEMP.	HTI OUTLET TEMP.	CAPSULE	CAPSULE	REACTOR	QUADRANT
		FR-1	FR-2	FR-1	TR-2	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1		INITIAL
1-4-66	0210	76	76	158	124	123	120	121	111	112	122	150	60MW	OK RAB
1-4-66	0237	76	76	158	138	132	122	128	111	116	116	150	60MW	OK RAB
1-4-66	0335	76	76	158	140	132	122	128	111	116	116	148	60MW	OK RAB
1-4-66	0440	76	76	158	140	132	122	128	111	116	116	148	60MW	OK RAB
1-4-66	0525	76	76	158	140	132	122	128	111	116	116	148	60MW	OK RAB
1-4-66	0625	76	76	158	140	132	122	128	111	116	116	148	60MW	OK RAB
1-4-66	0730	76	76	158	140	132	123	128	111	116	116	148	60MW	OK RAB
1-4-66	0825	76	76	158	141	133	123	128	111	116	116	148	60MW	OK RAB
1-4-66	0725	76	76	158	141	133	123	128	111	116	116	148	60MW	OK RAB
1-4-66	1025	71	76	158	141	133	124	129	112	116	116	148	60MW	OK LXE
1-4-66	1125	71	76	158	143	135	125	131	113	118	118	148	60MW	OK LXE
1-4-66	1225	71	76	158	143	135	125	131	113	118	118	148	60MW	OK LXE

REMARKS

Callout 0234 1-4-66

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW	OUTLET FLOW	HTI PRESS	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	HTI INLET TEMP.	HTI OUTLET TEMP.	CAPSULE	CAPSULE	REACTOR	QUADRANT	INITIAL
		FR-1	FR-2	FR-1	TR-2	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1	PRESS	POWER	CHECK
1/4/66	1330	76	76	158	144	135	125	130 ²⁴²	114	118	119	148	60MW	OK	LLE
1/4/66	1430	76	76	158	144	136	126	131	114	119	119	148	60MW	OK	LLE
1/4/66	1530	76	76	158	143	136	125	131	114	119	119	148	60MW	OK	LLE
1/4/66	1630	76	76	158	145	136	126	131.5	115	119	119.5	148	60MW	OK	PMT
1/4/66	1735	76	76	158	145	136	126	131	114.5	119	119.5	148	60MW	OK	PMT
1/4/66	1830	77	76	160	145	136	125.5	131.5	114	119	118.5	148	60MW	OK	PMT
1/4/66	1930	76	76	159	145	136	125.5	131	114	119	119.5	148	60MW	OK	PMT
1/4/66	2035	75	75	158	145	135.5	125.5	131.5	113.5	118	118.5	148	60MW	OK	PMT
1-4-66	2130	76	76	158	145.5	136	125	130.5	113	118	118	148	60MW	OK	PMT
1-4-66	2230	76	75	158	145	136.5	125.5	131	113.5	118.5	117	148	60MW	OK	PMT
1-4-66	2330	76	76	158	144.5	135	124.5	130	112	117.5	117	148	60MW	OK	PMT

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTL PRESS		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		HTL INLET TEMP.		HTL OUTLET TEMP.		CAPSULE OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QUADRANT CHECK	
		FR-1	FR-2	FR-1	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1														INITIAL
1-5-66	0040	76	76	158	144	134	124	130	111	117	116	149	60MW	OK													RAB
1-5-66	0130	76	76	158	144	134	124	130	111	117	116	149	60MW	OK													RAB
1-5-66	0230	76	76	158	144	134	124	129	111	117	116	149	60MW	OK													RAB
1-5-66	0330	76	76	158	144	134	124	129	111	117	116	149	60MW	OK													RAB
1-5-66	0430	76	76	158	144	134	124	130	111	117	116	149	60MW	OK													RAB
1-5-66	0530	76	76	158	144	134	123	129	111	117	116	149	60MW	OK													RAB
1-5-66	0630	76	76	158	144	134	123	129	111	117	116	149	60MW	OK													RAB
1-5-66	0730	76	76	158	144	134	123	129	111	117	116	149	60MW	OK													RAB
1/5/66	0820	76	76	158	147	139	129	134	118	121	122	141	60MW	OK													LXE
1/5/66	0935	76	76	158	145	135	125	131	112	118	118	148	60MW	OK													LXE
1/5/66	1035	76	76	158	144	135	125	130	112	118	117	148	60MW	OK													LXE
1/5/66	1125	76	76	158	144	136	125	131	113	119	118	148	60MW	OK													LXE

REMARKS

0825 - ALL TEMPERATURES INCREASED 5° TO 7° OVER PAST HOUR. LXE

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW	OUTLET FLOW	HTI PRESS	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	HTI INLET TEMP.	HTI OUTLET TEMP.	CAPSULE OUTLET TEMP.	CAPSULE PRESS	REACTOR POWER	QUADRANT CHECK	INITIAL
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1			
1/5/66	1235	76	76	158	145	136	126	131	114	118	118	149	60MW	OK	XLE
1/5/66	1330	76	76	158	145	136	126	132	115	119	119	149	60MW	OK	XLE
1/5/66	1435	76	76	158	146	137	127	133	115	120	120	149	60MW	OK	XLE
1/5/66	1525	76	76	158	145	138	127	133	115	120	120	149	60MW	OK	XLE
1/5/66	1630	76	76	158	145	137.5	127	133	115.5	120	120.5	149	60MW	OK	PMT
1-5-66	1730	76	76	158	145	138	127	133	115	120	120	149	60MW	OK	PMT
1-5-66	1830	76	76	158	145	137.5	127	133	115.5	120	120	149	60MW	OK	PMT
1-5-66	1930	76	76	158	145	137.5	127	133	115	120	120.5	149	60MW	OK	PMT
1-5-66	2030	76	76	158	145	137.5	127	133	115	120	120	149	60MW	OK	PMT
1-5-66	2130	76	76	158	145	137.5	127.5	133	115.5	120	120.5	149	60MW	OK	PMT
1-5-66	2230	76	76	158	145	138	127.5	133	115	120	120.5	149	60MW	OK	PMT
1-5-66	2330	76	76	158	145	138	127.5	133	115.5	120.5	120.5	149	60MW	OK	PMT

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTI PRESS		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		HTI INLET TEMP.		HTI OUTLET TEMP.		CAPSULE PRESS		REACTOR FLOW		QUADRANT CHECK	
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PT 1												INITIAL
1-6-66	0030	76	76	158	146	138	128	134	115	120	121	144	60MM	OK											RAB
1-6-66	0130	76	76	158	146	137	127	132	115	120	120	149	60MM	OK											RAB
1-6-66	0230	76	76	158	146	137	127	133	115	120	120	149	60MM	OK											RAB
1-6-66	0330	76	76	158	146	137	127	133	115	120	120	149	60MM	OK											RAB
1-6-66	0430	76	76	158	146	137	127	133	115	120	120	149	60MM	OK											RAB
1-6-66	0530	76	76	158	146	138	128	133	115	120	120	149	60MM	OK											RAB
1-6-66	0630	76	76	158	146	138	127	134	115	120	120	149	60MM	OK											RAB
1-6-66	0730	76	76	158	146	138	127	134	115	120	120	149	60MM	OK											RAB
1/6/66	0830	76	76	158	146	138	127	133	115	120	120	149	60MM	OK											LLE
1/6/66	0925	76	76	158	146	138	127	133	115	120	120	149	60MM	OK											LLE
1/6/66	1030	76	76	158	146	138	127	133	115	120	120	149	60MM	OK											LLE
1/6/66	1130	76	76	158	146	138	127	133	115	120	120	149	60MM	OK											LLE

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTL PRESS		SAMPLE TEMP. X 2.5		SAMPLE TEMP. X 2.5		SAMPLE TEMP.		HTL INLET TEMP.		HTL OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QU. PANT CHECK	
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1										INITIAL
1/6/66	1225	76	76	158	146	138	128	133	116	120	120	149	60MW	OK									LLE
1/6/66	1335	76	76	158	146	138	128	134	116	120	121	149	60MW	OK									LLE
1/6/66	1435	76	76	158	147	139	128	135	116	121	121	148	60MW	OK									LLE
1/6/66	1525	76	76	158	148	139	128	134	116	121	121	148	60MW	OK									LLE
1/6/66	1630	76	76	158	148	139	128.5	135	116	121	121	148	60MW	OK									PMT
1/6/66	1730	76	76	158	148	139	127.5	134	115.5	120.5	120.5	148	60MW	OK									PMT
1/6/66	1830	76	76	158	148	139	127	134	116	121	120.5	148	60MW	OK									PMT
1/6/66	1930	76	76	158	147	139	128	134.5	115	120.5	120.5	147	60MW	OK									PMT
1/6/66	2030	76	76	158	148	139	128	134	115	120	120	148	60MW	OK									PMT
1/6/66	2130	76	76	158	148	139	128	134	115	120	120	148	60MW	OK									PMT
1/6/66	2230	76	76	158	147	139	128	134.5	115	120	120	148	60MW	OK									PMT
1/6/66	2330	76	76	158	147	139	128	134	115	120	120	148	60MW	OK									PMT

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTI PRESS		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		HTI INLET TEMP.		HTI OUTLET TEMP.		CAPSULE OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QUADRANT CHECK		INITIAL
		FR-1	FR-2	FR-1	FR-2	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1														
1-7-66	0030	76	76	158	147	138	127	134	115	120	120	149	60 MW	OK													RAB	
1-7-66	0130	76	76	158	147	138	127	134	114	120	119	149	60 MW	OK													RAB	
1-7-66	0230	76	76	158	147	138	127	134	114	120	119	149	60 MW	OK													RAB	
1-7-66	0330	76	76	158	147	138	127	134	114	120	119	149	60 MW	OK													RAB	
1-7-66	0430	76	76	158	147	138	127	134	115	120	120	149	60 MW	OK													RAB	
1-7-66	0530	76	76	158	147	138	127	134	115	120	120	149	60 MW	OK													RAB	
1-7-66	0630	76	76	158	147	138	127	134	115	120	120	149	60 MW	OK													RAB	
1-7-66	0730	76	76	158	141	138	127	134	115	120	120	149	60 MW	OK													RAB	
1/7/66	0830	76	76	158	147	138	128	134	115	120	120	149	60 MW	OK													LRE	
1/7/66	0935	76	76	158	147	138	128	134	115	120	120	149	60 MW	OK													LRE	
1/7/66	1030	76	76	158	147	138	118	134	115	120	120	149	60 MW	OK													LRE	
1/7/66	1135	76	76	158	147	137	126	132	113	118	118	149	60 MW	OK													LRE	

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTI PRESS		SAMPLE TEMP. 1-8W		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		HTI INLET TEMP.		HTI OUTLET TEMP.		CAPSULE OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QUADRANT CHECK		INITIAL
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1															
1/7/66	1230	76	76	158	146	137	126	133	113	119	118	149	60MW	OK														220
1/7/66	1330	76	76	158	146	137	126	133	113	119	118	149	60MW	OK														220
1/7/66	1430	76	76	158	146	137	126	133	113	119	118	149	60MW	OK														220
1/7/66	1525	76	76	158	146	138	126	133	113	119	118	149	60MW	OK														220
1/7/66	1630	76	76	158	145	137.5	126	133	113	118.5	118	149	60MW	OK														PMT
1/7/66	1730	76	76	158	147	136.5	125	132	112	117.5	117	149	60MW	OK														PMT
1/7/66	1830	76	76	158	147	136	126	132	112	118.5	117	149	60MW	OK														PMT
1-7-66	1930	76	76	158	145	137	127	133	113	119	118	149	60MW	OK														PMT
1-7-66	2030	76	76	158	146	137	126.5	133	112	118.5	117.5	149	60MW	OK														PMT
1-7-66	2130	76	76	158	146	137	127	133	112.5	119	118.5	149	60MW	OK														PMT
1-7-66	2230	76	76	158	146	136	126	132	112	118	117.5	149	60MW	OK														PMT
1-7-66	2330	76	76	158	146	136	125	132	112	118	117	149	60MW	OK														PMT

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW	OUTLET FLOW	HTI PRESS	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	HTI INLET TEMP.	HTI OUTLET TEMP.	CAPSULE	CAPSULE	REACTOR	QUADRANT	INITIAL
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1			
1-8-66	0030	76	76	158	145	135	124	131	110	117	116	149	60MW	OK	RAB
1-8-66	0130	76	76	158	146	139	128	135	116	120	121	149	60MW	OK	RAB
1-8-66	0230	76	76	158	146	139	127	134	116	121	121	149	60MW	OK	RAB
1-8-66	0330	76	76	158	146	138	127	133	113	120	119	149	60MW	OK	RAB
1-8-66	0430	76	76	158	146	137	126	133	113	119	118	149	60MW	OK	RAB
1-8-66	0530	76	76	158	150	140	130	137	119	122	123	149	60MW	OK	RAB
1-8-66	0630	76	76	158	146	137	126	134	114	119	119	149	60MW	OK	RAB
1-8-66	0730	76	76	158	146	137	126	134	113	119	118	149	60MW	OK	RAB
1-8-66	0830	76	76	158	146	137	126	133	113	118	118	149	60MW	OK	LRE
1-8-66	0935	76	76	158	141	137	126	133	113	128	118	149	60MW	OK	LRE
1-8-66	1030	76	76	158	150	141	130	137	118	122	123	149	60MW	OK	LRE
1-8-66	1135	76	76	158	151	142	131	138	126	121	122	149	60MW	OK	LRE

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTI PRESS		SAMPLE TEMP. X-8N		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		HTI INLET TEMP.		HTI OUTLET TEMP.		CAPSULE OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QUADRANT CLOCK		INITIAL
		FR-1	FR-2	FR-1	FR-2	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1														
1/8/66	1230	76	76	158	151	142	131	138	120	121	122	149	60MW	OK														X&E
1/8/66	1325	76	76	158	151	142	131	138	120	121	121	149	60MW	OK														X&E
1/8/66	1435	76	76	158	146	138	126	133	113	119	118	149	60MW	OK														X&E
1/8/66	1535	76	76	158	148	140	129	136	116	121	122	149	60MW	OK														X&E
1-8-66	1630	76	76	158	148	137	127	134	113	119	119	149	60MW	OK														PMT
1-8-66	1730	76	76	158	148	138	128	133	114	120	121	149	60MW	OK														PMT
1-8-66	1830	76	76	158	148	136	127	131	112	118	119	149	60MW	OK														PMT
1-8-66	1930	76	76	152	144	135	126	139	111	118	118	149	60MW	OK														PMT
1-8-66	2030	76	76	158	148	139	129	131	114	121	120	149	60MW	OK														PMT
1-8-66	2130	76	76	158	145	137	127	129	113	119.5	119	149	60MW	OK														PMT
1-8-66	2230	76	76	158	145	136	126	130	112	119	118	149	60MW	OK														PMT
1-8-66	2330	76	76	158	144	136	126	133	113	119	118	149	60MW	OK														PMT

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPTLE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTI PRESS		SAMPLE TEMP. 19A		SAMPLE TEMP. 2		SAMPLE TEMP. 4		SAMPLE TEMP. 5		HTI INLET TEMP.		HTI OUTLET TEMP.		CAPSULE OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QUADRANT CHECK		INITIAL
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1															
1-9-66	0030	76	76	158	146	136	126	133	113	119	118	149	60MW	OK														RAB
1-9-66	0130	76	76	158	146	136	126	133	113	119	118	149	60MW	OK														RAB
1-9-66	0230	76	76	158	146	136	126	133	113	119	118	149	60MW	OK														RAB
1-9-66	0330	76	76	158	146	136	126	133	113	119	118	149	60MW	OK														RAB
1-9-66	0430	76	76	158	146	137	127	134	113	120	119	149	60MW	OK														RAB
1-9-66	0530	76	76	158	146	137	127	134	114	119	119	149	60MW	OK														RAB
1-9-66	0630	76	76	158	146	137	127	134	114	120	119	149	60MW	OK														RAB
1-9-66	0730	76	76	158	146	137	127	134	114	120	119	149	60MW	OK														RAB
1/9/66	0830	76	76	158	146	137	127	134	114	120	119	149	60MW	OK														LXE
1/9/66	0935	76	76	158	146	137	127	134	114	120	119	149	60MW	OK														LXE
1/9/66	1035	76	76	158	156	141	131	138	120	123	125	149	60MW	OK														LXE
1/9/66	1130	76	76	158	149	139	129	135	117	121	121	149	60MW	OK														LXE

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW	OUTLET FLOW	HTI PRESS	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	HTI INLET TEMP.	HTI OUTLET TEMP.	CAPSULE OUTLET TEMP.	CAPSULE PRESS	REACTOR POWER	QUADRANT CHECK	INITIAL
		FR-1	FR-2	FR-1	TR-2	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1			
1/9/66	1230	76	76	158	149	139	129	135	117	121	121	149	60MW	OK	XRE
1/9/66	1330	76	76	158	149	139	129	135	117	121	121	149	60MW	OK	XRE
1/9/66	1430	76	76	158	149	139	129	136	117	121	121	149	60MW	OK	XRE
1/9/66	1530	76	76	158	150	139	129	136	117	122	122	149	60MW	OK	XRE
1-9-66	1630	76	76	158	149	139	129	135.5	117	121.5	122	149	60MW	OK	PMT
1-9-66	1730	76	76	158	148	141	130.5	137	118	123	123	149	60MW	OK	PMT
1-9-66	1830	76	76	158	147	141	131	136	118	122	123	149	60MW	OK	PMT
1-9-66	1930	76	76	158	150	140	130	136	118	122	124	149	60MW	OK	PMT
1-9-66	2030	76	76	158	149	141	131.5	135.5	118.5	123	124	149	60MW	OK	PMT
1-9-66	2130	76	76	158	149	141	131	138	119	123	125	149	60MW	OK	PMT
1-9-66	2230	76	76	158	149	142	132	139	119.5	123	124.5	149	60MW	OK	J
1-9-66	2330	76	76	158	150	141	131	138	119	123	124	149	60MW	OK	IT

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW	OUTLET FLOW	HTI PRESS	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	HTI INLET TEMP.	HTI OUTLET TEMP.	CAPSULE OUTLET TEMP.	CAPSULE PRESS	REACTOR POWER	QUADRANT CHECK	INITIAL
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1			
1-10-66	0030	76	76	158	150	142	131	138	119	123	124	148	60MW	OK	RAB
1-10-66	0130	76	76	158	150	141	131	138	119	123	124	148	60MW	OK	RAB
1-10-66	0230	76	76	158	150	141	131	138	119	124	124	148	60MW	OK	RAB
1-10-66	0330	76	76	158	150	141	131	138	119	124	124	148	60MW	OK	RAB
1-10-66	0430	76	76	158	150	141	131	138	119	124	124	148	60MW	OK	RAB
1-10-66	0530	76	76	158	150	143	132	140	120	124	125	148	60MW	OK	RAB
1-10-66	0630	76	76	158	150	142	132	140	120	124	125	148	60MW	OK	RAB
1-10-66	0730	76	76	158	151	143	133	140	120	124	125	148	60MW	OK	RAB
1/10/66	0825	76	76	158	151	143	132	140	120	124	125	148	60MW	OK	LLE
1/10/66	0930	76	76	158	151	143	133	140	120	124	125	149	60MW	OK	LLE
1/10/66	1025	76	76	158	151	143	133	140	120	124	125	149	60MW	OK	LLE
1/10/66	1125	76	76	157	151	143	133	140	120	124	125	149	60MW	OK	LLE

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW	OUTLET FLOW	HTI PRESS	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	HTI INLET TEMP.	HTI OUTLET TEMP.	CAPSULE OUTLET TEMP.	CAPSULE PRESS	REACTOR POWER	QUADRA-CELLS	INITIAL
		FR-1	FR-2	FR-1	TR-2	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1			
1/10/66	1235	76	76	158	151	143	133	140	120	124	125	149	60 MW	OK	LSE
1/10/66	1330	76	76	158	151	143	133	140	120	124	125	149	60 MW	OK	LSE
1/10/66	1430	76	76	158	150	141	131	138	118	123	123	149	60 MW	OK	LSE
1/10/66	1525	76	76	158	150	141	130	138	117	122	122	149	60 MW	OK	LSE
1-10-66	1630	76	75	158	150	139	129	137	115	122	121	149	60 MW	OK	PMT
1-10-66	1730	76	75	158	150	139	129	138	115	122	120	149	60 MW	OK	PMT
1-10-66	1830	76	75	158	149	139	129	138	114.5	121	120	149	60 MW	OK	PMT
1-10-66	1935	76	77	158	151	138	128	135	113	120	118	149	60 MW	OK	PMT
1-10-66	2030	76	77	158	148	137	127	134	113	119	119	149	60 MW	OK	8MT
1-10-66	2130	76	77	158	149	138	126	135	113	118.5	119	149	60 MW	OK	PMT
1-10-66	2230	76	77	158	147	136	128	136	114	120	118.5	149	60 MW	OK	PMT
1-10-66	2330	76	77	158	149	139	128	136	115	119	118	149	60 MW	OK	PMT

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTI PRESS		SAMPLE TEMP. 1-2		SAMPLE TEMP. 3-4		SAMPLE TEMP. 5-6		SAMPLE TEMP. 7-8		HTI INLET TEMP.		HTI OUTLET TEMP.		CAPSULE OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QUADRANT CHECK	
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1														INITIAL
1-11-66	0030	77	76	158	150	142	132	139	120	124	125	148	60MW	OK													RAB
1-11-66	0130	77	76	158	151	142	132	139	120	124	124	148	60MW	OK													RAB
1-11-66	0230	77	76	158	150	142	132	140	120	124	125	148	60MW	OK													RAB
1-11-66	0330	77	76	158	151	144	134	140	122	125	126	148	60MW	OK													RAB
1-11-66	0430	77	76	158	149	140	130	137	116	122	121	148	60MW	OK													RAB
1-11-66	0530	77	76	158	149	140	130	137	116	122	121	148	60MW	OK													RAB
1-11-66	0630	77	76	158	147	138	128	135	114	120	119	148	60MW	OK													RAB
1-11-66	0730	77	76	158	147	138	128	135	113	120	118	148	60MW	OK													RAB
1/11/66	0830	77	76	158	147	138	128	136	113	120	118	149	60MW	OK													LLE
1/11/66	0930	77	76	158	149	141	131	138	118	122	122	149	60MW	OK													LLE
1/11/66	1035	77	76	158	149	141	131	138	118	121	121	149	60MW	OK													LLE
1/11/66	1130	77	76	158	149	140	130	137	116	121	121	119	60MW	OK													LLE

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTL PRESS		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		HTL INLET TEMP.		HTL OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QUADRANT CHECK	
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1										INITIAL
1/11/66	1230	77	76	158	146	138	128	135	113	120	118	149	60MW	OK									L.E
1/11/66	1325	77	76	158	146	138	128	135	113	120	118	149	60MW	OK									L.E
1/11/66	1425	77	76	158	146	138	128	135	113	119	118	149	60MW	OK									L.E
1/11/66	1525	77	76	158	149	141	131	138	118	123	123	149	60MW	OK									L.E
1-11-66	1635	77	76	158	149	142	133	140	120	124	125	149	60MW	OK									PMT
1-11-66	1730	77	76	158	149	144	131	141	121	125	127	149	60MW	OK									PMT
1-11-66	1830	77	76	158	152	144	134	142	122	125	127	149	60MW	OK									PMT
1-11-66	1930	77	76	158	149	142	133	139	120	123	129	149	60MW	OK									PMT
1-11-66	2030	77	76	158	150	141	131	138	118	123	124	149	60MW	OK									PMT
1-11-66	2130	77	76	158	153	144	136	143	121	125	126	149	60MW	OK									PMT
1-11-66	2230	77	76	158	151	143	135	141	120	124	125	149	60MW	OK									PMT
1/11/66	2330	77	76	158	151	143	133	140	121	125	126	149	60MW	OK									PMT

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTI PRESS		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		HTI INLET TEMP.		HTI OUTLET TEMP.		CAPSULE OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QUADRANT CHECK	
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1														INITIAL
1-12-66	0030	77	76	158	153	144	135	142	122	126	127	148	60 MW	OK													RUB
1-12-66	0130	77	76	158	153	144	135	142	122	126	127	148	60 MW	OK													RUB
1-12-66	0230	77	76	158	148	139	129	136	115	121	120	148	60 MW	OK													RUB
1-12-66	0330	77	76	158	147	139	129	137	115	121	120	148	60 MW	OK													RUB
1-12-66	0430	77	76	158	147	139	130	136	115	121	120	148	60 MW	OK													RUB
1-12-66	0530	77	76	158	148	139	130	137	116	121	121	148	60 MW	OK													RUB
1-12-66	0630	77	76	158	148	139	130	136	115	121	120	148	60 MW	OK													RUB
1-12-66	0730	77	76	158	149	139	130	137	116	121	120	148	60 MW	OK													RUB
1-12-66	0830	77	76	158	148	139	129	137	115	121	120	149	60 MW	OK													RUB
1-12-66	0935	77	76	158	148	139	130	137	116	122	121	149	60 MW	OK													RUB
1-12-66	1035	77	76	158	148	139	130	137	117	122	121	149	60 MW	OK													RUB
1-12-66	1125	77	76	158	148	140	130	138	117	122	122	149	60 MW	OK													RUB

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW		OUTLET FLOW		HTI PRESS		SAMPLE TEMP. 80V		SAMPLE TEMP.		SAMPLE TEMP.		HTI INLET TEMP.		HTI OUTLET TEMP.		CAPSULE OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QUADRANT CHECK		INITIAL
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1														
1/12/66	1230	77	76	158	149	140	131	139	117	122	122	149	60MW	OK											XLE	
1/12/66	1330	77	76	158	152	143	134	142	122	125	127	149	60MW	OK											XLE	
1/12/66	1435	77	76	158	153	144	135	143	123	126	128	149	60MW	OK											XLE	
1/12/66	1525	77	76	158	154	145	136	143	124	127	129	149	60MW	OK											XLE	
1-12-66	1630	77	76	158	151	142	133	140	119	123	124	149	60MW	OK											PMT	
1-12-66	1730	77	76	158	149	141	132	139	118	123	124	149	60MW	OK											PMT	
1-12-66	1830	77	76	158	152	142	134	141	121	126	125	149	60MW	OK											PMT	
1-12-66	1930	77	76	158	154	145	136	143	124	127	128	149	60MW	OK											PMT	
1-12-66	2030	77	76	158	153	143	135	142	123	126	127	149	60MW	OK											PMT	
1-12-66	2130	77	76	158	153	143	136	142	123	125	126	149	60MW	OK											PMT	
1-12-66	2230	77	76	158	153	143	135	142	122	125	126	149	60MW	OK											PMT	
1-12-66	2330	77	76	158	152	142	134	141	121	125	127	149	60MW	OK											PMT	

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

SLOAN RECORD DATA SHEET #2 INITIAL RUN																											
DATE	TIME	INLET FLOW		OUTLET FLOW		HTI PRESS		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		SAMPLE TEMP.		HTI INLET TEMP.		HTI OUTLET TEMP.		CAPSULE OUTLET TEMP.		CAPSULE PRESS		REACTOR POWER		QUADRANT CHECK	
		FR-1	FR-2	PR-1	TR-2	TR-1	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1														INITIAL
1-13-66	0030	77	76	158	149	140	130	138	116	122	121	149	60 MW	OK													RUB
1-13-66	0130	77	76	158	147	137	128	135	113	120	118	149	60 MW	OK													RUB
1-13-66	0230	77	76	158	147	137	128	135	113	120	118	149	60 MW	OK													RUB
1-13-66	0330	77	76	158	147	137	128	135	113	120	118	149	60 MW	OK													RUB
1-13-66	0430	77	76	158	146	137	128	135	113	120	118	149	60 MW	OK													RUB
1-13-66	0530	77	76	158	147	137	128	136	114	120	119	149	60 MW	OK													RUB
1-13-66	0630	77	76	158	146	138	129	136	115	121	120	149	60 MW	OK													RUB
1-13-66	0730	77	76	158	146	138	130	137	115	121	120	149	60 MW	OK													RUB
1-13-66	0830	77	76	158	147	139	130	137	116	121	121	149	60 MW	OK													LRE
1-13-66	0925	77	76	158	147	139	130	137	116	121	121	149	60 MW	OK													LRE
1-13-66	1035	77	76	158	148	137	130	137	116	122	121	149	60 MW	OK													LRE
1-13-66	1130	77	76	158	148	139	130	138	116	122	121	149	60 MW	OK													LRE

REMARKS

SYSTEM HOURLY DATA SHEET W-2 INPILE LOOP

DATE	TIME	INLET FLOW	OUTLET FLOW	HTI PRESS	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	SAMPLE TEMP.	HTI INLET TEMP.	HTI OUTLET TEMP.	CAPSULE OUTLET TEMP.	CAPSULE PRESS	REACTOR POWER	QUADRANT COUNT	INITIAL
		FR-1	FR-2	FR-1	TR-2	TR-1	TR-1	TR-1	TE-1	TE-2	TE-3	PI-1			
1/13/66	1235	77	76	158	148	139	138	137	116	121	120	149	60MW	OK	LRE
1/13/66	1325	77	76	158	148	138	129	137	115	120	120	149	60MW	OK	LRE
1/13/66	1425	77	76	158	148	138	129	137	114	120	120	149	60MW	OK	LRE
1/13/66	1525	77	76	158	148	138	129	137	114	120	119	149	60MW	OK	LRE
1-13-66	1630	77	76	158	147	137	128	135	113	119	118	149	60MW	OK	PMT
1-13-66	1730	77	76	158	147	136	127	134	112	118	116	149	60MW	OK	PMT
1-13-66	1830	77	76	158	145	136	128	135	113	118	116	149	60MW	OK	PMT
1-13-66	1930	77	76	158	145	136	127	134	112	118	115	149	60MW	OK	PMT
1-13-66	2030	77	76	158	145	136	127	134	112	118	115	149	60MW	OK	PMT
1-13-66	2130	77	76	158	145	135	126	134	111	118	116	149	60MW	OK	PMT
1-13-66	2235	77	76	158	144	134	125	133	110	117	115	149	60MW	OK	PMT
1-13-66	2330	77	76	158	144	134	125	132	110	117	115	149	60MW	OK	PMT

SYSTEM HOURLY DATA SHEET W-2 INPUT LOOP

[illegible]

REMARKS