Catalog Information on the Performance of Aluminum in Sea Water

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Richland, Washington 99352

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By

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Opinions, findings, conclusions, or recommendations
expressed herein are those of the authors and do not
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ABSTRACT

To help evaluate aluminum alloys for OTEC heat exchanger tubes data on the performance of aluminum in surface and deep sea water has been assembled and computer cataloged. Pitting and crevice corrosion proved to be the types of attack that predominated. The cataloged data are the results of many static tests conducted under natural conditions of marine fouling, hence, they must be used carefully in qualifying aluminum for OTEC purposes. These data can serve the OTEC program best as a basis for selecting aluminum alloys that appear promising as candidates for further evaluation. The aluminum alloys 5052 and Alclad (7072) 3003 fall into this category. Available service histories also proved inadequate for qualifying aluminum alloys for the OTEC application, but they do support the selection of Alclad (7072) 3003 as a tubing alloy worthy of further consideration. Performance data covering areas of investigation peculiar to OTEC power plants is needed to permit a firm decision for or against aluminum alloy tubes.

I. INTRODUCTION

The Ocean Thermal Energy Conversion (OTEC) program sponsored by the United States Department of Energy, formerly the Energy Research and Development Administration (DOE/ERDA) requires the development of heat exchangers to utilize the overall temperature difference between warm water from the ocean surface and cold water from the ocean depths to set a working fluid in motion and drive a turbine. Due to the small temperature difference within the cycle these heat exchangers will have to be larger than anything in use today. The size of the units along with the fact that they will be used at sea, either floated on the surface or bouyed at some depth, makes inspection and maintenance difficult placing a premium on the corrosion resistance of construction materials.

Aluminum has recently become a candidate material for OTEC heat exchanger tubes because of its apparent compatibility with anhydrous ammonia, the proposed working fluid, its ready availability and low cost. To qualify for the OTEC application the aluminum or aluminum alloy must have a high resistance to corrosion by sea water as well as the ability to retain that resistance over an extended period of time.

Over the years aluminum alloys have enjoyed considerable acceptance for marine applications including but not limited to ship hulls, super structures, and shipboard heat exchangers (9, 47, 55, 59, 60, 61, 62). More recently, aluminum alloy tube, pipe, sheet, and plate have demonstrated acceptable performance handling raw and treated sea water in experimental desalination plants (18, 20, 27, 31, 32, 40, 41, 42, 63), as well as the demonstration plants operated by Israel Desalination Ltd. (77). This does not mean that aluminum and its alloys are immune to corrosion by sea water, it means that engineering properties including corrosion resistance generally balance out in favor of aluminum for these "top side" applications.

Aluminum alloy components have performed well on the "Aluminaut" (47) and other deep submergence vehicles (54). However, in these cases the aluminum is generally protected by either special paint coatings or sacrificial anodes which can be repaired or replaced during inspection and maintenance periods. Not much can be done in the way of maintaining tubes in OTEC heat exchangers. Treating sea water with corrosion inhibitors, for example, would be financially disastrous.

To obtain information that might be of help in qualifying aluminum and/or aluminum alloys for OTEC heat exchanger tubes Alcoa entered into a contract with Battelle's Pacific Northwest Laboratories (PNL) to conduct a search of available literature on the corrosion of aluminum by sea water.

II. SCOPE OF WORK

The scope of this work is briefly described in the four subdivisions that follow:

- 2.1 Compile and catalog data on the performance of aluminum in sea water.
- 2.2 Evaluate the cataloged data with respect to qualifying aluminum alloys for OTEC heat exchangers.
- 2.3 Provide service histories illustrating the performance of aluminum alloy tubes in sea water service.
- 2.4 Suggest areas where additional data is needed to qualify aluminum alloys for OTEC heat exchangers.

III. DATA SOURCES

The considerable data accumulated by the Alloy Technology Division of the Alcoa Technical Center as the result of exposure tests of aluminum in marine environments was reviewed and that pertaining to actual sea water exposures was tabulated.

In searching the literature, data bases provided by the Lockheed Information Service were consulted. These included the following:

- (1) Chemical Abstracts - 1972 to September, 1976.
- (2) Dissertations Abstracts - All through 1976.
- (3) Engineering Abstracts - 1970 to August, 1976.
- (4) National Information Service - 1964 to August, 1976.
- (5) Oceanic Abstracts - 1964 to August, 1976.
- (6) World Aluminum Abstracts - 1968 to August, 1976.

Literature sources not covered by Lockheed that were consulted include:

- (1) Corrosion Abstracts - 1962 - 1975.
- (2) Chemical Abstracts - 1927 - 1972.
- (3) Metal Abstracts - 1944 - 1966.

In addition, the government laboratories, universities and other aluminum producers listed in Appendix I were requested to provide pertinent data if possible. The majority of these organizations responded to the request but provided only previously published data that had been found in the literature search.

IV. CATALOGED DATA

Data on the resistance of aluminum to corrosion by sea water cataloged for the OTEC program is given in Tables I and II of Appendix II. These data were cataloged using Data Processing Language and are listed according to alloy and exposure site. All of the cataloged data resulted from static tests under the conditions of marine macro and/or micro fouling characteristic of the exposure site. Two tables were required because of the large amount of information needed to describe the specimen, location of exposure, sea water composition and the various measurements related to corrosion performance.

4.1 General Description

Table I lists the information most often provided by the references. The first five columns describe the specimen giving the alloy and temper, the product evaluated, the type of specimen evaluated, and the specimen size. The column headed Specimen Code (Spec. Code) contains the numbers 1, 2, and 3. These code numbers are not directly related to corrosion, but have been included to indicate whether a specimen was welded or not. The code number 1 means that the specimen was not welded, a number 2 means that two pieces of the same aluminum alloy were welded together, and a number 3 means that an aluminum alloy was welded to a different aluminum alloy. Columns 7 through 9 give details of the exposure including the location of the test site, the depth of immersion in sea water and the period of time the specimens were in test. Surface water exposures are indicated by "total immersion", "mean tide" or "tide water" and "alternate immersion". The remaining columns give the corrosion information. Here one data line was sufficient for a specimen that was not welded; for a welded specimen several lines were required to record corrosion of the base alloy remote from the weld, corrosion of the base alloy in the heat affected zone adjacent to the weld, and corrosion of the weld bead. For each location examined the type, maximum and average depths of attack are given while the total volume of metal loss is recorded as a uniform corrosion rate in inches per year.

Table II provides additional sample description, miscellaneous corrosion information and a reference to the source of the data.

4.2 Aluminum Alloys Listed

The cataloged data provides information on sea water corrosion for a variety of aluminum alloys including those normally recommended for heat exchanger applications. The heat exchanger alloys are designated as 3003, 5052, 5056, 5083, 5456, 6061, Alclad 3003, and Alclad 6061. The composition limits and the recommended use of these alloys in heat exchanger construction are given in Table I.

V. VALUE OF THE CATALOGED DATA FOR OTEC

Care must be taken in utilizing the cataloged data directly for qualifying aluminum alloys for OTEC heat exchangers. This judgment is based on the following considerations:

- (a) A practical interpretation of the data cannot be made because of the high degree of variability found in the depth of corrosive attack measured on specimens of any one alloy at a given exposure site.
- (b) The data were obtained from static tests and do not reflect the effect of velocity which is important for OTEC.
- (c) The data were obtained under the conditions of marine macro and/or micro fouling characteristic of the site and depths, therefore, they do not show the effect of clean surfaces as required for OTEC heat exchangers.

The cataloged data can serve the OTEC program best as a basis for selecting aluminum alloys for additional evaluation. These data indicate that the nonclad aluminum alloy 5052 and the clad alloy Alclad 3003 are good candidates for testing under conditions that approximate those anticipated for OTEC. That these two alloys merit further consideration in the OTEC program is best illustrated by data reported by Jenkins and Reinhart (2) and by Reinhart (3) for exposures in surface and deep water of the Pacific Ocean off Port Hueneme, California. Their data for the 5052 aluminum alloy is given on pages 9, 11, 12, and 13 in Table I and pages 8, 19, 11, and 12 in Table II of the cataloged data. The data in Table I shows that the 5052 alloy has a high resistance to pitting corrosion that was not significantly affected by either length of exposure or depth of immersion. The data in Table II confirms that the 5052 alloy like most aluminum and other common metal alloys is susceptible to crevice corrosion. A critical evaluation of crevice corrosion, with respect to alloy, length of exposure and depth of immersion is impossible without assurance that all of the crevice specimens were uniform in nature. In the opinion of the authors, resistance

Table 1

HEAT EXCHANGER ALLOYS - THEIR COMPOSITION LIMITS AND RECOMMENDED USE IN HEAT EXCHANGER CONSTRUCTION

Alloy	Composition Limits (1)									Others		Aluminum	Recommended Use in Heat Exchangers (2)
	Silicon	Iron	Copper	Man- ganese	Mag- nesium	Chromium	Nickel	Zinc	Titan- ium	Each	Total	Min.	
3003	0.6	0.7	0.05- 0.20	1.0- 1.5	--	--	--	0.10	--	0.05	0.15	Remainder	Heat exchanger tube; baffles, flanges, stub ends
5052	0.25	0.40	0.10	0.10	2.2- 2.8	0.15- 0.35	--	0.10	--	0.05	0.15	Remainder	Heat exchanger tube
5056	0.30	0.40	0.10	0.05- 0.20	4.5- 5.6	0.05- 0.20	--	0.10	--	0.05	0.15	Remainder	Shells, header, water boxes
5083	0.40	0.40	0.10	0.40- 1.0	4.0- 4.9	0.05- 0.25	--	0.25	0.15	0.05	0.15	Remainder	Shells, headers, water boxes
5454	0.25	0.40	0.10	0.50- 1.0	2.4- 3.0	0.05- 0.20	--	0.25	0.20	0.05	0.15	Remainder	Heat exchanger tube, shells, headers, water boxes
6061	0.40-	0.70	0.15- 0.40	0.15	0.8- 1.2	0.04 0.35	--	0.25	0.15	0.05	0.15	Remainder	Heat exchanger tube; tie rods, flanges, stub ends
Alclad 3003 Core	Same as 3003												Heat exchanger tube; baffles
7072 Cladding	0.7 Si + Fe		0.10	0.10	0.10	--	--	0.8- 1.3	--	0.05	0.15	Remainder	
Alclad 6061 Core	Same as 6061												Heat exchanger tube; tube sheets.
7072 (Cladding)	Same as for Alclad 3003												

Notes: (1) Given in per cent maximum unless stated as a range.
Aluminum standards and data: The Aluminum Association.
(2) Alcoa Aluminum Heat Exchanger and Condenser Booklet.

to pitting corrosion is of considerably more importance to the OTEC program than is resistance to crevice corrosion. Conditions that promote pitting corrosion cannot be controlled in OTEC while conditions that promote crevice corrosion can be controlled by (a) maintaining clean surfaces required for OTEC, and (b) designing OTEC heat exchangers to avoid crevices.

Data for specimens of Alclad 3003 from References 2 and 3 are recorded on pages 74, 75, and 76 in Table I and pages 61, 62 and 63 in Table II of the cataloged data. One group of Alclad 3003 specimens of unknown temper showed only minor pitting and crevice corrosion even after 36 months of exposure at a depth of 5640 feet. Another group of Alclad 3003 specimens in the H12 temper from similar exposures at the same test site showed uniformly deep pitting and crevice attack of 0.016 to 0.020 inch/year. Although, this difference in performance cannot be satisfactorily explained, it is unusual for alclad material of comparable quality. This leads the authors to suspect that the second series of specimens were prepared from substandard sheet. A detailed metallographic examination of typical specimens from each group might help clear up this point.

As mentioned above, the cataloged data do not appear adequate for the outright qualification of aluminum for OTEC. However, they do suggest that the aluminum alloys 5052 and Alclad 3003 are promising candidates that should be included in future tests where variables that may affect corrosion performance can be studied under conditions peculiar to OTEC.

VI. VARIABLES THAT AFFECT CORROSION

A number of variables that can affect the corrosion performance of aluminum and its alloys are given and discussed in the subsections that follow. A few of these have been so thoroughly studied and defined it can be stated categorically that they will have a harmful effect in sea water. On the other hand, the affect of others on performance have not been so clearly defined especially under OTEC conditions. OTEC is a new application for aluminum that involves a combination of conditions for which there has been no previous need for such corrosion data.

6.1 Metallic Ions

Metallic ions that can affect the corrosion of aluminum are those of copper, lead, tin, nickel, cobalt and mercury. When these metallic ions are present in an electrolyte, surface and deep sea water, for example, they tend to deposit through electrochemical action onto aluminum. This is harmful to aluminum because it accelerates pitting corrosion. Since further tests will be required to qualify aluminum for OTEC, it is important that the experimental design specify uncontaminated sea water and exclude

equipment of these metals. In the event that aluminum does qualify for OTEC the plant should be designed with no equipment containing these metals and their alloys upstream of the aluminum.

6.2 Galvanic Corrosion

In the galvanic series for metals in sea water aluminum is one of the more active (anodic) metals. Hence, there are many common metals and their alloys than can promote galvanic corrosion of aluminum when in metallic contact with it in sea water. Copper and copper containing alloys as well as steels including stainless steel will promote galvanic corrosion of aluminum in sea water. Corrosion of aluminum in a galvanic couple can be reduced to acceptable levels by cathodic protection or by providing complete electrical isolation between the aluminum and dissimilar metal of the couple. However, the best procedure is to design to avoid dissimilar metal couples. Therefore, if further evaluation of aluminum is made for OTEC, the experiments should be designed to avoid electrical contact between aluminum and dissimilar metals. Similarly, if aluminum does qualify for OTEC and is used for heat exchanger tubes, the tube sheets should also be of aluminum. Alclad plate such as Alclad (7072) 6061 is normally recommended for tube sheets. Water boxes or headers of aluminum construction would also be preferred although steel water boxes have been used provided they were (a) coated internally with a material such as Debecote (Debevoise Co., Brooklyn, N.Y.), or its equivalent, and (b) electrically insulated from the aluminum by using nonabsorbent gasket material and insulating sleeves and washers on fasteners.

6.3 Crevice Corrosion

Crevice corrosion is a localized form of attack that takes place when an electrolyte seeps into confined spaces such as crevices at faying surfaces, under absorbent gaskets, under scale, and beneath marine fouling. It results from a concentration gradient particularly of oxygen between the bulk of solution and the confined space. Aluminum and its alloys like many other common metals and alloys are susceptible to crevice corrosion.

None the less the authors restate their opinion that crevice corrosion of aluminum should not be a problem in OTEC. The degree of cleanliness mandated for OTEC heat transfer requirements should eliminate deposits of marine growth and scale as possible sources while design specifications can be formulated to minimize corrosion in crevices that cannot be avoided in heat exchanger construction. Preparation of design specifications might profit from further testing of crevice specimens to evaluate the benefit of various gasket materials and sealant compounds along with degree of mechanical tightness in alleviating crevice corrosion under conditions anticipated for OTEC.

6.4 Velocity

The effect of velocity on the corrosion of aluminum is not well documented in the literature. The results of work with high speed water wheels (48) are excluded as not being applicable to the problem at hand. Data collection in such tests may start at zero velocity but then jumps to a velocity in the neighborhood of 10 knots or 4.9 to 5.2 m/sec (16-17 feet per second) bypassing the range of interest. Godard and Booth (26) reported data from a three year test at Harbor Island, NC in which surface sea water at ambient temperature flowed continuously through aluminum pipe of CA-1S alloy (99.6% aluminum). They found pitting depth to decrease as the relative velocity of the sea water increased from 0.3 to 1.1 m/sec (1 to 3.5 feet per second) and then increased with further increases in the relative velocity. They also observed that "marine growth", which was about 12.7 mm (1/2") thick at the lowest velocity, decreased with increasing velocity to become "non-existent" at velocities above 1.1 m/sec (3.5 feet per second). Their observation on "marine growth" and velocity is supported by Grey and Gashus (64) who state that "if sea water velocities are maintained above 0.9 m/sec to 1.0 m/sec (3 to 3.5 ft/sec) "marine organisms" will have difficulty in attaching themselves and fouling is minimized".

Peterson and Lennox (34) report that minor variations in sea water velocity have marked effects on the corrosion of 6061-T6 aluminum. They found that a continuous flow at 0.23 m/sec (0.75 ft/sec) increased both pitting attack and corrosion of intentional crevices from that normally expected for 6061-T6 aluminum in quiescent sea water to an unacceptable level in 728 days.

Henrikson and Knutson (49) found that a velocity of 2.5 m/sec (8.2 ft/sec) was too fast for aluminum tubes handling Baltic Sea water at the temperature of 50°C (122°F).

Wilson and Hawkins (65, 66) cite two experiments conducted some years ago by the United States Navy. In one experiment at Kure Beach, NC an aluminum heat exchanger containing Alclad (inside 7072) 3003 tubes handled surface sea water in the tubes continuously for two years at a velocity of 3.0 m/sec (10 feet per second). The unit was then operated in a cyclical manner one month at velocity and one month with no flow. After a total exposure of 6 years the tubes were examined and although some local cladding consumption was observed no penetration into the 3003 core alloy was noted. In the other experiment sea water was pumped through pipe of several aluminum alloys for periods ranging from 12 to 42 months at a velocity of 3.0 m/sec (10 feet per second). The aluminum alloys included in this experiment were 3003, Alclad (7072) 3003 and 5052. It was concluded that the life expectancy of both 3003 and Alclad 3003 pipe was at least 10 years. The 5052 pipe showed somewhat lower but acceptable resistance to sea water corrosion. Although these experiments do not show the effect of velocity on corrosion they do demonstrate that the aluminum alloys tested are capable of providing extended service handling surface sea water at a velocity in excess of that anticipated for OTEC heat exchangers.

6.5 Depth of Immersion

The authors suggest that corrosion data reported for deep waters in the Pacific (2, 3) and Atlantic (7, 8) Oceans may not be significant in the OTEC program. While it is true that a heat exchanger in the condensing cycle of an OTEC power plant will handle cold water from the ocean depths, the heat exchanger will not be at that depth. Instead, it will be closer to the surface. Deep water will rise in the intake pipe to enter the exchanger at a considerably lower pressure and perhaps a somewhat different chemical composition than at depth. Tube surfaces are also expected to be kept free of fouling in the OTEC application, thus minimizing any effect that slimes or other deep sea organisms might have on aluminum corrosion.

6.6 Oxygen

Oxygen can play a dual role in the corrosion of aluminum. In one role it serves to depolarize cathodic areas and thereby helps maintain the activity of pits once initiated. In the other role, it serves to maintain the integrity of the corrosion resistant oxide film on aluminum and thus reduce the tendency of pits to form.

Godard (9) believes that deaeration of a water is beneficial to aluminum. In experiments he performed, oxygen free water did not cause pitting of freshly etched aluminum, whereas, in oxygen saturated water the initiation of pits was rapid. He further cites a report by Rowe and Walker who found that in a water containing copper, bicarbonate, and chloride ions the exclusion of air reduced the amount of corrosion on aluminum to only one third of that encountered in the presence of air.

On the other hand, Fink and Boyd (15), using data obtained by Reinhart (3) from the NCEL Exposures in the Pacific off Port Hueneme, California, developed a plot that shows the depth of pitting for the 5000 series of alloys to increase as the oxygen content decreases from 5.25 ppm in surface water to lower values at several depths. The word series is emphasized because it implies a number of alloy types each of which behaves somewhat differently than the other. The authors could not develop a plot as definitive as that of Fink and Boyd using Reinhart's data for 5052 aluminum alloy. It is worth mentioning here that a statistical test applied to Reinhart's data did not indicate a significant correlation between pit depth and the oxygen content of sea water.

In the NCEL program, Muroaka (10, 52) was investigating the effects of marine organisms on various materials and in one experiment he exposed specimens of an aluminum alloy under nearly sterile conditions in surface water and at depth. It is interesting to note that under the virtually sterile conditions he found the specimens to be affected about the same at depth as at the surface.

Since the oxygen content of the deep water was less than that of surface water the implication is that oxygen availability had no effect on corrosion in this test.

Evidence regarding the effect that oxygen content of natural sea water may have on the corrosion of aluminum is meager and inconclusive. A thorough investigation of this matter is recommended.

6.7 Marine Organisms and Fouling

A major difference between surface and deep ocean waters is the type of families of marine organisms that exist in each. Muroaka (52) reported very little "fouling" growth on materials exposed in the deep sea although hydroids and slime were found. Barnacles, sea squirts, bryozoa, mussels and so forth, found in shallow water exposures are not found in the deep sea.

Efird (45) investigated the relationships between corrosion and macro-fouling of metals in surface sea water at the International Nickel Company, Wrightsville Beach, NC test station. Tidal flow at this station is about 0.30 m/sec (1 foot per second) and fouling is classified as moderate to heavy. He found that fouling properties of alloys are influenced by their corrosion characteristics and can be placed in one of the three following categories: (1) highly corrodible metals, (2) passive metals, and (3) toxic film forming metals. Highly corrodible metals such as carbon steel will foul and the fouling is easily removed with corrosion products, sloughing off at intervals during exposure. Passive alloys, he cites aluminum, foul readily and the fouling is tightly adherent. Toxic film forming metals such as copper and copper alloys are resistant to macro fouling. He reports that any effect of macro fouling on the corrosion of passive metals results from oxygen concentration cells where crevice corrosion takes place beneath the fouling organism. Haglwara (46) noted some mild corrosion beneath barnacle shells on aluminum alloys 1100, 3003, 5052, 6063 and 7075 exposed to surface waters off the coast of Japan. As pointed out previously in this report, all of the data cataloged were obtained under conditions of marine fouling and so include any effect such fouling may have on the corrosion of aluminum.

The effect of deep sea organisms on the corrosion of metals is not well documented. Willingham (16) studied the corrosion of metals by anaerobic bacteria in sea water under elevated hydrostatic pressure using cultures of sulfate reducers obtained from (1) carbonate sediments off Andros Island, B.W.I., (2) the Black Sea at 250 meters (820 ft), and (3) the Black Sea at 500 meters (1640 feet). He exposed specimens of ingot iron, electrical conductor grade aluminum and stainless steel to each culture at 20 and 40°C under pressures of 0, 20.3, and 60.8 mega pascals (0, 200 and 600 atmospheres). The ingot iron was severely corroded at 0 and 20.3 mega pascals (0-20 atm.) but virtually

unaffected at 60.8 mega pascals (600 atm). The aluminum and stainless steel specimens were virtually unaffected at all temperatures and pressures employed. He suggested that the cultures become sterile under 60.8 mega pascals (600 atm.) pressure because at that pressure the ingot iron was virtually unaffected. His findings with respect to aluminum corrosion by these organisms are in line with expectations. Hydrogen sulfide, a product of their metabolism, has no action on aluminum, whereas, its corrosive effect on iron and low carbon steels is well known. In regard to this reaction with iron it is suggested that if the iron sulfide corrosion products settle out on aluminum and remain undisturbed corrosion of aluminum can result from both concentration cell and galvanic action.

So far marine organisms have been considered solely with regard to their corrosive effect on metals. Of equal or perhaps more importance is the physical effect they can have on plant performance. Uninhibited growth of surface water organisms can lead to partial blockage of flow channels and even complete plugging of heat exchanger tubes. If slimes noted by Muroaka (52) form in OTEC condenser tubes handling water from the ocean depths, heat transfer efficiency could be seriously impaired even though little or no change in total flow occurred.

It has been pointed out previously that macro fouling will be minimized if operating velocities are maintained above 0.9 to 1.0 m/sec (3 to 3.5 feet per second). If operation is intermittent so that velocities fall below this range large marine organisms can attach themselves and flourish when velocities are raised due to the increased rate of food supply. In this case chlorination may be beneficial. The Alcoa desalination pilot plant evaluated at San Juan, Puerto Rico was operated intermittently for a period of two years during which chlorination at the level of 0.75 ppm chlorine proved beneficial in maintaining clean heat transfer surfaces. Weight (68) has also used chlorination to prevent marine growth in an ocean water cooling system for a power station located on the west coast. Turner (69) reported that continuous chlorination at levels as low as 0.25 ppm residual chlorine prevented attachment and growth of slime bacteria as well as macro-organisms in sea water piping system. In the authors experience chlorination at the levels indicated should not have a harmful effect on the performance of aluminum and none would be expected under OTEC conditions.

A method patented by Turner (70) for preventing marine fouling involves treating submerged surfaces with water containing ions generated by electrolysis from anodes of aluminum, iron or copper containing from 0.25 to 6% of arsenic and/or antimony. Copper anodes, of course, would not be used with aluminum equipment.

Blogoslawski (71) et al, describe an ozone water treatment that eliminated troublesome fouling associated with piping large volumes of sea water. The effect of ozonation on the performance of aluminum in sea water is not known to the authors.

6.8 Cathodic Protection and Antifouling Paints

It is expected that with OTEC plants partly submerged at sea free use will be made of cathodic protection as well as antifouling paints to mitigate corrosion and marine fouling of exterior metal surfaces.

Cathodic protection of a single metal system whether steel or aluminum would be a relatively simple matter. However, if tube sheets and headers of the OTEC power modules are aluminum, as they should be with aluminum tubes, and other components are steel, the problem becomes somewhat more complicated because the exterior surfaces of both the aluminum and steel would require protection. Either an impressed current system or sacrificial anodes could be used and at this stage of OTEC development it is virtually impossible to say which would be the better choice. Both systems are used on the Alcoa Seaprobe (73). The impressed current system would permit finer control of the cathodic protection process than would be possible with sacrificial anodes which is important when protecting a combination of dissimilar metals, but it is also considerably more expensive. If sacrificial anodes are decided upon, those containing tin or mercury (36) as alloying elements should be avoided if there is a possibility for corrosion products from them to settle or deposit on aluminum equipment. The corrosion products would contain tin and mercury in substantial amounts both of which can promote corrosion of aluminum. Mercury can also amalgamate with aluminum as well as some other common metals to cause corrosion that can be catastrophic.

Antifouling paints would likely be considered for submerged parts of OTEC plants to minimize marine growth. Paints of this kind containing tributyl tin oxide (35) would be preferred where aluminum is concerned over those containing copper compounds as the toxic agent. Antifouling paints containing mercury compounds should not be used on or near aluminum equipment

6.9 Calcium

Data related to calcium scaling by sea water is scarce. However, both deep and surface water are essentially saturated at their respective pH, temperature and pressure with calcium, sulfate and bicarbonate ions. Hence, the potential for scaling exists when, for example, deep water is brought to the surface. Whether

scaling would occur in OTEC power plant condenser tubes depends on kinetic factors, availability of nucleation sites, operating parameters of the plant and sea water composition at a specific location and depth. It would be worthwhile to investigate this potential problem through a suitably designed research program.

6.10 Tube Vibration

Forces that cause tubes to vibrate may result from any one or combination of (1) high vapor velocity, (2) flow of fluid over flexible tube, (3) pumping operations, and (4) expansion and contraction of tubes due to thermal conditions within the exchanger. Vibration damage, of course, is a mechanical factor which Sebald (67) attributes to improper design. He analyzed the problem concluding that a reduction in span between baffles will increase the frequency but reduce the amplitude of vibration resulting in an increase in stiffness of the tube. He states that this relationship is of fundamental importance in designing a condenser to eliminate damaging tube vibration and demonstrates the method of applying the relationship to condenser design.

The authors agree that Sebald's solution should reduce the tendency for condenser tubes to fail by fatigue and/or corrosion fatigue, but so far as it is known this mode of failure has rarely if ever been encountered with aluminum condenser tubes. However, fretting has been found on tubes that vibrated or rubbed against baffles that could in time contribute to failure by fatigue. This type of damage as encountered in a steam plant surface condenser and illustrated in Figure 1 is the reason for concern about tube vibration in OTEC heat exchangers. The question of whether such damage will develop under OTEC conditions needs to be addressed. The arbitrary use of preventative measures such as the installation of sleeves on tubes where they pass through baffles would be an expensive procedure if it were not needed.

6.11 Vapor Impingement

Vapor impingement is mentioned because it is a common source of localized damage to aluminum tubes in steam plant surface condensers that perform the same basic function expected of OTEC power plant condensers. That function is to condense a low pressure vapor leaving a turbine - generator set.

In steam plant service the turbine exhaust steam entrains droplets of condensate and this wet steam impinging on aluminum tubes at local velocities well in excess of the average velocity can promote damage typical of that illustrated in Figure 1.

Figure 1

Aluminum tube from a steam plant surface condenser illustrating:

- (1) Fretting damage where the tube passed through a baffle.
- (2) Severe damage that resulted from impingement of wet steam.

1. FRETTING

2. IMPINGEMENT

Figure 1

While designs for OTEC power plant condensers call for lower average vapor velocities than in steam plant surface condensers, care needs to be exercised to avoid local velocities well in excess of the average velocity. If these exist, then the effect of ammonia vapor containing droplets of liquid impinging on aluminum tubes should be addressed.

6.12 Tube Cleaning

Very little information is available concerning cleaning of aluminum condenser tubes that would be of value in the OTEC program. Manual methods that have been used successfully with aluminum tubes are briefly described in the Alcoa Aluminum Heat Exchanger and Condenser Booklet (72), but such methods would not be practical for OTEC where continuous on line cleaning would be needed to maintain the degree of cleanliness required for heat transfer.

Continuous on line cleaning methods for heat exchanger and condenser tubes are available from the American M.A.N. Corporation, 1114 Avenue of the Americas, New York, N.Y. and the Amertap Corporation, Mineola, New York. During March, 1977 each company was contacted regarding the use of the methods with aluminum tubes. Mr. Gerhard Foerster responding for the American M.A.N. Corporation stated that to the best of his knowledge the M.A.N. system had never been used with aluminum. A similar response was received from Mr. M. J. Gruen of the Amertap Corporation in regard to the Amertap process. Both respondents provided literature describing their respective process in some detail.

The M.A.N. process (74) uses brushes with bristles of selected plastic held in place by titanium wire. Each condenser tube is serviced by its own brush and has a manually installed plastic cage at each end in which the brush is parked between cleaning cycles. Cages and brushes are available for all common tube sizes. The brushes are moved from one end of the tube to the other by reversing the direction of cooling water flow. A complete cleaning cycle for a large installation requires about 80 seconds. An automatic timer permits intervals between cleaning cycles to be matched to the degree of water pollution. The brushes, resistant to sea water attack, have a life of over 10,000 cycles and then would have to be replaced which could be a major undertaking for an OTEC condenser. However, the M.A.N. brushes should be well suited for cleaning tubes with fluted water side surfaces. Since the use of fluted tubes in OTEC power plant heat exchangers is a distinct possibility, the abrasive action of M.A.N. brushes on aluminum tubes should be investigated.

The Amertap process (75) employs plain sponge rubber balls that are constantly circulated through the condenser tubes. The balls are slightly larger in diameter than the tubes and are compressed as they travel the length of the tube. The rubbing action keeps the tube walls clean and free from deposits of all types. Suspended solids are kept moving, while bacterial slimes and marine organisms are wiped quickly away. The balls are selected to provide maximum cleaning for a particular installation. Their specific gravity is nearly equal to that of the cooling medium resulting in a homogeneous distribution throughout the cooling medium. Balls are available in several degrees of resiliency depending on the requirements.

An abrasive coated ball is also available for situations where condenser tubes have already been heavily fouled. The degree of abrasiveness can be varied to meet the degree of fouling. The effect is a gentle scouring of the tube wall, removing scale slowly but steadily until the tube is ready to be maintained by the normal plain sponge rubber balls.

The balls are circulated in a closed loop that includes the condenser. At the discharge end they are caught in a screening device installed directly in the pipe line. They are then routed through a collector unit back to the inlet ball injector nozzles. This insures a uniform distribution of the balls over the pipe cross-section.

The number of balls required is a function of the number of tubes in the condenser. When properly charged, i.e. the correct number of balls inserted, each tube receives a ball on the average of once every five minutes.

The cleaning cycle can be interrupted at any time at the collector unit to count the balls, check sizes, or take them out of service. Wear eventually reduces the size of the balls and whenever they reach a predetermined diameter they should be replaced. Replacement of balls can be easily and quickly done at the collector unit.

The authors are aware that the Amertap process has been suggested for OTEC and there is no reason why plain sponge rubber balls could not be used to advantage with aluminum tubes. Abrasive coated rubber balls could be a problem and their affect on aluminum tubes should be determined.

6.13 Ammonia-Sea Water Solutions

Depending on the design of OTEC Power Plant heat exchangers the possibilities of ammonia leakage into sea water and of sea water leakage into ammonia exist. Included in problems that might develop from such leakage is corrosion of aluminum tubes by both dilute ammonia-sea water solutions and ammonia contaminated with sea water. Previous experience proves that aluminum alloys are attacked by aqueous ammonia solutions. However, when conditions permit passivation of the aluminum surface corrosion generally proceeds at a very low rate after an initial period of rapid attack. Bonewitz (78) reported initial corrosion rates on the order of 25 mm per year (1000 mils/yr) for aluminum alloys in dilute solutions of ammonia in deionized water. Since leak detection in an OTEC Power Plant heat exchanger would hardly be instantaneous and since passivation of aluminum tubes could be retarded or even prevented by both velocity effects and continuous cleaning, data on the compatibility of aluminum with ammonia-sea water solutions is needed. Such data for aluminum in solutions of ammonia and actual sea water are scarce. However, Bonewitz (76, 78) investigated the performance of the aluminum alloys 1100, 3003, 5052, and 6063 in initially aerated solutions of ammonia and synthetic sea water under quiescent conditions and the 3003 alloy under conditions of flow using velocities of 1.2 meters per second (4 ft/sec) and 2.4 meters per second (8 ft/sec).

Under the quiescent conditions synthetic sea water containing up to 30% by weight of ammonia caused uniform corrosion of the aluminum specimen, characterized generally by initial rates of attack no higher than 0.5 mm per year (21 mils/yr) followed by decreased corrosion rates or passivation of the metal surface. Selecting synthetic sea water containing 5% ammonia that caused the highest initial corrosion rate as the most aggressive solution, corrosion rates for 3003 tube were found to decrease as the water velocity was increased up to 2.4 meters per second (8 ft/sec).

In synthetic sea water containing from 30% up to 70% by weight of ammonia only superficial etching of the metal surfaces occurred. Rates of attack based on weight loss in these solutions were no greater than .013 mm per year (0.5 mil/yr).

In solutions containing from 90% up to 100% of ammonia pitting of the aluminum occurred. The depth of pitting increased as the water content decreased from 10% (90% ammonia) to 0% (100% ammonia), but in no case was it greater after four weeks of exposure than after one week. Maximum pit depths measured by metallographic methods on the aluminum alloy specimens after four weeks of exposure to 100% ammonia were reported as follows:

Alloy	Maximum Pit Depth	
	mm	mils
1100	.041	1.6
3003	.119	4.7
5052	.058	2.3
6063	.015	0.6

The lower corrosion rates in dilute ammonia-synthetic sea water solutions as compared to those reported for dilute ammonia-deionized water solutions is attributed to the presence of magnesium ions in the sea water. The magnesium reacts with hydroxyl ions to concurrently precipitate magnesium hydroxide and lower the pH of the solution resulting in low initial corrosion rates. The magnesium also acts as a corrosion inhibitor by helping to establish a passive film on the aluminum surface. The integrity of the passive film under conditions of flow is being investigated further by Dow Chemical Company under a contract with Battelle Pacific Northwest Laboratories for DOE.

The authors call attention to the chemistry of ammonia-sea water solutions, resulting in precipitation of magnesium hydroxide, as possibly a greater potential hazard to OTEC Power Plant performance than corrosion of aluminum tubes. Magnesium hydroxide precipitating in the tubes as a result of ammonia leakage into sea water would be removed by whatever continuous on line cleaning method was used. However, continuous cleaning of the outside (ammonia side) of the tubes is not practical and precipitate resulting from sea water leakage into ammonia would tend to accumulate on the tubes. This would add a substantial resistance to heat transfer and reduce the overall efficiency of the plant.

VII. SERVICE EXPERIENCE

A number of service histories selected with the application of aluminum tubes in OTEC in mind are given in Appendix III. Information on operating conditions such as water velocity, water temperature and water treatment is included for the few cases where such data were available. Most of these histories involved the use of Alclad (7072) 3003 aluminum tubes handling sea water because this alloy has for years been the heat exchanger tube alloy recommended for handling aggressive waters. In more or less recent service tests nonclad aluminum alloy tubes have been evaluated in desalination pilot plants. At both the OSW test bed site at Freeport, Texas (40, 41, 42, 63), and the Reynolds/OSW Wrightsville Beach (63) facility the nonclad tubes performed exceptionally well handling treated sea water. The treatment involved for the most part removing noncondensibles (CO₂, O₂, etc.) from the sea water. At the OSW test bed site at Freeport, Texas

(41, 63), the heat reject exchanger #21 handled raw sea water in the nonclad tubes. During the first six months of service the nonclad tubes were virtually unaffected. However, during six additional months replacement tubes as well as remaining original tubes were seriously pitted and perforated beneath barnacle shells.

The service histories for Alclad (7072) 3003 tube suggest that a service life well in excess of 10 years might be expected handling surface sea water. Any effect that continuous cleaning might have on the corrosion performance of Alclad (7072) 3003 tube must be determined by experiment.

VIII. CONCLUSIONS

Care must be taken in using the cataloged data for qualifying aluminum tubes for OTEC power plant heat exchangers because these data do not include the effects of velocity and continuous cleaning that will exist in an OTEC plant. However, there is evidence in the cataloged data and elsewhere in the report that support the following premises each of which require further study before a firm decision can be made to qualify aluminum tubes for OTEC heat exchangers.

(1) The aluminum alloys 5052 and Alclad (7072) 3003 appear promising for OTEC heat exchanger tubes. Tubes of each alloy should be included in future tests to determine their performance under conditions peculiar to OTEC.

(2) The effect of depth and the related oxygen depletion on the performance of aluminum in sea water is not well established by the existing data. Depth alone may not be significant because the chemical composition of water entering the tubes of an OTEC power plant condenser could be somewhat different after rising through the intake pipe than it was at depth. The oxygen content could be the same or somewhat greater than at depth depending on the intake design. In view of the uncertainties involved the effect of deep water and oxygen content on the performance of aluminum should be thoroughly examined under conditions anticipated for an OTEC power plant condenser.

(3) The existing data do not show to what extent crevice corrosion would be encountered on aluminum in OTEC power plant heat exchangers. OTEC heat exchangers should be designed to avoid crevices.

(4) The effect of sea water velocity under the conditions and in the range anticipated for OTEC on the performance of aluminum is not well documented in the literature. Alcoa recommends water velocities no greater than 7 ft/sec. for aluminum heat exchanger tube. In the author's opinion localized conditions that promote turbulence well in excess of that expected for the average velocity are more significant than is the average velocity alone.

(5) The effect of cleaning on the corrosion performance of aluminum tubes in an OTEC power plant heat exchanger cannot be determined from existing data. Chlorination at levels no greater than 0.75 ppm chlorine should be beneficial in reducing marine fouling and have no adverse effect on the corrosion of aluminum tubes. The effect of abrasive action inherent to continuous on line cleaning with either sponge rubber balls or brushes is not known and needs to be determined.

IX. OTHER AREAS FOR INVESTIGATION

In addition to the above more or less basic considerations the author suggests investigations in the following areas.

Calcium

Data relating calcium content of sea water to scaling tendencies is scarce. Typical data on calcium scaling should be developed through a suitably designed research program. If calcium scaling turns out to be a problem, the Amertap and M.A.N. processes should be investigated as a means of reducing it.

Tube Vibration

The effect of vibration on tube performance should be examined under conditions that duplicate as closely as possible those anticipated for OTEC condensers. This means the specimen tube should be the same length, diameter and wall thickness expected for OTEC. The specimen tube should be fixed at both ends while baffles should be the same thickness and spaced as they would be in service. The sea water velocity as well as the inside and outside tube wall temperatures should duplicate the values expected in service. The concern here is not primarily fatigue but whether fretting between the tube and baffles will cause serious damage.

Vapor Impingement

The possibility of damage to aluminum tubes by impinging ammonia vapor containing droplets of liquid ammonia should be addressed under conditions anticipated for OTEC.

RHW:RAB:ali

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APPENDIX I

OUTSIDE SOURCES CONSULTED

Government Laboratories

Naval Research Laboratories
Washington, D.C.
Dr. M. H. Peterson

Naval Civil Engineering Laboratory
Port Hueneme, CA
Fred M. Reinhart (Ref.)

National Bureau of Standards
Washington, D.C.
Dr. Jerome Kruger

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APPENDIX II

CATALOGED DATA

KEY TO ABBREVIATIONS USED IN TABLE I

<u>Column Heading</u>	<u>Explanation of Abbreviation</u>
Ident. Number	Ident. = Identification
Prod.	Prod. = Product; Extr. = Extrusion
Spec. Code	Spec. = Specimen; 1 = not welded; 2 = an aluminum alloy welded to the same aluminum alloy; 3 = an aluminum alloy welded to a different aluminum alloy
Type of Specimen	C-Ring = A type of stressed specimen; Ten. Blank = Tensile Blank; Preform = Another type of stressed specimen
Specimen Size	Dia. = Diameter; T = Thickness
Depth-Ft.	Ft. = Feet; T.W. = Tide Water; SED. = Sediment; A.I. = Alternate Immersion
Type of Attack	P = Pitting; I = Intergranular; UNI = Uniform; EXFL = Exfoliation; Locl = Localized; UP = Undermining Pitting; UP+E = Undermining pitting plus exfoliation; BLIS = Blistering; P+I = Pitting plus intergranular; I+P = Intergranular plus Pitting; I = Intergranular; P+EX = Pitting plus Exfoliation; GEN = General; P+BL = Pitting plus Blistering
Depth of Attack	Max. = Maximum; PERF = Perforated; NAA = No Appreciable Attack; INCIP = Incipient; SEVER = Severe; EXTN = Extensive; MOD. = Moderate; MED = Medium; SHAL = Shallow

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
38	1060-H14	PLATE	1	C-RING	.75 DIA	HUENEPE CAL	5100	25	BASE ALLOY				
34	1060-H14	PLATE	1	C-RING	.75 DIA	MIAMI FLA	TW	6	BASE ALLOY				
35	1060-H14	PLATE	1	C-RING	.75 DIA	MIAMI FLA	TOTAL	6	BASE ALLOY				
36	1060-H14	PLATE	1	C-RING	.75 DIA	TONGUE OF OCEAN	5100	4	BASE ALLOY				
39	1100=	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	13	12	BASE ALLOY	P		.0060	.0003
40	1100=	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	MEANTIDE	12	BASE ALLOY	P		.010	.0001
41	1100=	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	13	96	BASE ALLOY	P		.0110	.0007
42	1100=	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	MEANTIDE	96	BASE ALLOY	P		.0140	.0003
43	1100=	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	13	192	BASE ALLOY	P	.033	.0170	.0010
44	1100=	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	MEANTIDE	192	BASE ALLOY	P	.067	.0390	.0005
47	1100=	SHEET	1			TONGUE OF OCEAN	5600	4	BASE ALLOY	P	PERF		.0017
48	1100=	SHEET	1			TONGUE OF OCEAN	5600	34	BASE ALLOY	P	PERF		.0010
45	1100=F	PLATE	1	PANEL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.030	.030	
46	1100=F	PLATE	1	PANEL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.020	.020	
61	1100-H14	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	6	BASE ALLOY	P	.0006		
62	1100-H14	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	31	BASE ALLOY	P	.0040		
63	1100-H14	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	60	BASE ALLOY	P	.0130		
64	1100-H14	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	120	BASE ALLOY	P	.0110		
57	1100-H14	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.030		
58	1100-H14	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.026		
59	1100-H14	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.015		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI, DATA RATE IN/YR
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
										MAX.	MEAN	
60	1100-H14	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY		NAA	
53	1100-H14	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.0170	
54	1100-H14	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.0320	
55	1100-H14	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY		NAA	
56	1100-H14	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.029	
49	1100-H14	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY		NAA	
50	1100-H14	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY		NAA	
51	1100-H14	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.040	
52	1100-H14	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY		NAA	
1	1100-H14	SHEET	1		.051 T	HUENEME CAL	5640	4	BASE ALLOY	P	.039	.0020
2	1100-H14	SHEET	1		.051 T	HUENEME CAL	5640 SED	4	BASE ALLOY	P	.041	.0031
10	1100-H14	SHEET	1		.051 T	HUENEME CAL	2340	6	BASE ALLOY		.0000	.0056
11	1100-H14	SHEET	1		.051 T	HUENEME CAL	2340 SED	6	BASE ALLOY	P	INCIP	.0001
18	1100-H14	SHEET	1		.051 T	HUENEME CAL	5	6	BASE ALLOY		.0000	.0014
19	1100-H14	SHEET	1		.051 T	HUENEME CAL	5	12	BASE ALLOY	P	.013	.0006
3	1100-H14	SHEET	1		.051 T	HUENEME CAL	6780	13	BASE ALLOY		.0000	.0042
4	1100-H14	SHEET	1		.051 T	HUENEME CAL	6780 SED	13	BASE ALLOY	P	PERF	.0013
12	1100-H14	SHEET	1		.051 T	HUENEME CAL	2370	13	BASE ALLOY		.0000	.0016
13	1100-H14	SHEET	1		.051 T	HUENEME CAL	2370 SED	13	BASE ALLOY	P	.026	.0005
14	1100-H14	SHEET	1		.051 T	HUENEME CAL	2370	13	BASE ALLOY	P	INCIP	.0009
15	1100-H14	SHEET	1		.051 T	HUENEME CAL	2370	13	BASE ALLOY			

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR	
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
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16	1100-H14	SHEET	1		.051 T	HUENEME CAL	2370	13	BASE ALLOY				
17	1100-H14	SHEET	1		.051 T	HUENEME CAL	2370	13	BASE ALLOY				
5	1100-H14	SHEET	1		.051 T	HUENEME CAL	5640	24	BASE ALLOY		.0000		.0045
6	1100-H14	SHEET	1		.051 T	HUENEME CAL	5640 SED	24	BASE ALLOY		.0000		.0020
8	1100-H14	SHEET	1		.051 T	HUENEME CAL	5300	35	BASE ALLOY	P	SEVR		.0018
9	1100-H14	SHEET	1		.051 T	HUENEME CAL	5300 SED	35	BASE ALLOY		.0000		.0010
7	1100-H		1			HUENEME CAL	5300	35	BASE ALLOY		.0000		.0030
17	1160-H14	SHEET	1	PANEL	3X9X.064	HUENEME CAL	5100	25	BASE ALLOY	P	PERF		.0005
31	1160-H14	SHEET	1	PANEL	3X9X.064	MIAMI FLA	TW	6	BASE ALLOY	P	.0006	.0003	
32	1160-H14	SHEET	1	PANEL	3X9X.064	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0039	.0028	
33	1160-H14	SHEET	1	PANEL	3X9X.064	TONGUE OF OCEAN	5100	4	BASE ALLOY	P	.0012	.0008	
22	1180-		1			HUENEME CAL	2370	13	BASE ALLOY BASE EDGE	P P	.041 SEVRE		.0001
23	1180-		1			HUENEME CAL	2370	13	BASE ALLOY				
24	1180-		1			HUENEME CAL	2370	13	BASE ALLOY				
20	1180-H14	SHEET	1		.051 T	HUENEME CAL	2370	13	BASE ALLOY	P	INCIP		.0010
21	1180-H14	SHEET	1		.051 T	HUENEME CAL	2370 SED	13	BASE ALLOY	P	INCIP		.0008
25	1199-	SHEET	1	PANEL	.05X4X12	HARBOR ISLAND NC	TW	12	BASE ALLOY	P	.0053	.0000	.0002
28	1199-	SHEET	1	PANEL	.05X4X12	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.0117	.0024	.0002
26	1199-	SHEET	1	PANEL	.05X4X12	HARBOR ISLAND NC	TW	24	BASE ALLOY	P	.0036	.0018	.0001
29	1199-	SHEET	1	PANEL	.05X4X12	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0065	.0025	.0002

TABLE 1

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX	MEAN		
27	1199-	SHEET	1	PANEL	.05X4X12	HARBOR ISLAND NC	TW	60	BASE ALLOY	P	.0091	.0005	.0001
30	1199-	SHEET	1	PANEL	.05X4X12	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0036	.0002	.0001
66	3003-		1			HUENEME CAL	5640	4	BASE ALLOY		.0000		.0006
68	3003-		1			HUENEME CAL	5640 SED	4	BASE ALLOY		.0000		.0036
83	3003-		1			HUENEME CAL	2340	6	BASE ALLOY	P			.0014
85	3003-		1			HUENEME CAL	2340 SED	6	BASE ALLOY		.0000		.0001
94	3003-		1			HUENEME CAL	5	6	BASE ALLOY		.0000		.0010
95	3003-		1			HUENEME CAL	5	12	BASE ALLOY		.0000		.0010
70	3003-		1			HUENEME CAL	6780	13	BASE ALLOY		.0000		.0019
72	3003-		1			HUENEME CAL	6780 SED	13	BASE ALLOY		.0000		.0013
87	3003-		1			HUENEME CAL	2370	13	BASE ALLOY				.0011
89	3003-		1			HUENEME CAL	2370 SED	13	BASE ALLOY		.0000		.0005
74	3003-		1			HUENEME CAL	5640	24	BASE ALLOY		.0000		.0030
76	3003-		1			HUENEME CAL	5640 SED	24	BASE ALLOY		.0000		.0018
78	3003-		1			HUENEME CAL	5300	36	BASE ALLOY BASE EDGE	-	.0000 SEVER		.0028
80	3003-		1			HUENEME CAL	5300 SED	36	BASE ALLOY		.0000		.0010
113	3003-F	PIPE	1	PIPE	1.25 DIA	MIAMI FLA	TW	36	BASE ALLOY	P+SI	.0059	.0015	
115	3003-F	PIPE	1	PIPE	1.25 DIA	MIAMI FLA	TW	60	BASE ALLOY	I	.0066		
211	3003-F	PLATE	1	PANEL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.050	.050	
212	3003-F	PLATE	1	PANEL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.060	.030	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
116	3003-H14	SHEET	1	PANFL	8X10X.065	BLK ROCK HARBOR CONN	A.I.	3	BASE ALLOY				
121	3003-H14	SHEET	1	PANFL	8X10X.065	BLK ROCK HARBOR CONN	TOTAL	3	BASE ALLOY				
225	3003-H14	PLATE	1	PANFL	9X8X.25	BRIKHAM ENGLAND	TOTAL	6	BASE ALLOY	P	.0007		
226	3003-H14	PLATE	1	PANFL	8X8X.25	BRIKHAM ENGLAND	TOTAL	60	BASE ALLOY	P	.0050		
227	3003-H14	PLATE	1	PANFL	8X8X.25	BRIKHAM ENGLAND	TOTAL	120	BASE ALLOY	P	.0460		
125	3003-H14	SHEET	1	PANFL	4X9X.065	CORPUS CHRISTI TEX	FLUME	22	BASE ALLOY		.0168	.0056	.0005
221	3003-H14	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.0050		
222	3003-H14	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY		.020		
223	3003-H14	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY		NAA		
224	3003-H14	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY		.010		
124	3003-H14	SHEET	1	PANFL	4X9X.065	FREPPORT TEX	FLUME	7	BASE ALLOY				.0003
217	3003-H14	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.013		
218	3003-H14	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.015		
219	3003-H14	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.021		
220	3003-H14	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.022		
213	3003-H14	PLATE	1	PANFL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY		NAA		
214	3003-H14	PLATE	1	PANFL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY		NAA		
215	3003-H14	PLATE	1	PANFL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.013		
216	3003-H14	PLATE	1	PANFL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.021		
65	3003-H14		1		.125 T	HUENEME CAL	5640	4	BASE ALLOY	P	.027	.0194	.0005
67	3003-H14		1		.125 T	HUENEME CAL	5640 SED	4	BASE ALLOY BASE EDGE	P •	.055 YES	.0504	.0019

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION					GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX	MEAN		
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99	3003-H14		1		.125 T	HUENEME CAL	5640	4	BASE ALLOY				
105	3003-H14		1		.125 T	HUENEME CAL	5	4	BASE ALLOY				
81	3003-H14		1		.125 T	HUENEME CAL	2340	6	BASE ALLOY BASE EDGE	P -	.0170 YES		.0001
82	3003-H14		1		.125 T	HUENEME CAL	2340	6	BASE ALLOY BASE EDGE	P -	.0480 SEVER	.0160	.0024
84	3003-H14		1		.125 T	HUENEME CAL	2340 SED	6	BASE ALLOY BASE EDGE	P -	.0550 YES	.0206	.0016
93	3003-H14		1		.125 T	HUENEME CAL	5	6	BASE ALLOY BASE EDGE	P -	.0330 YES	.0184	.0011
104	3003-H14		1		.125 T	HUENEME CAL	2340	6	BASE ALLOY				
69	3003-H14		1		.125 T	HUENEME CAL	6780	13	BASE ALLOY	P	PERF	.0823	.0039
71	3003-H14		1		.125 T	HUENEME CAL	6780 SED	13	BASE ALLOY	P	PERF	.077	.0037
86	3003-H14		1		.125 T	HUENEME CAL	2370	13	BASE ALLOY BASE EDGE	P -	.091 SEVER		.0014
88	3003-H14		1		.125 T	HUENEME CAL	2370 SED	13	BASE ALLOY	P	.1151	.0487	.0017
90	3003-H14		1		.125 T	HUENEME CAL	2370	13	BASE ALLOY				
91	3003-H14		1		.125 T	HUENEME CAL	2370	13	BASE ALLOY				
92	3003-H14		1		.125 T	HUENEME CAL	2370	13	BASE ALLOY				
96	3003-H14		1		.125 T	HUENEME CAL	5	13	BASE ALLOY	P	.0210	.0146	.0010
97	3003-H14		1		.125 T	HUENEME CAL	5	13	BASE ALLOY	P	.0340	.0340	.0003
100	3003-H14		1		.125 T	HUENEME CAL	6780	13	BASE ALLOY				
98	3003-H14		1		.125 T	HUENEME CAL	5	19	BASE ALLOY	P	.0650	.0491	.0020

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	HRS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
73	3003-H14		1		.125 T	HUENEME CAL	5640	24	BASE ALLOY	P	PERF	.064	.0023
75	3003-H14		1		.125 T	HUENEME CAL	5640 SED	24	BASE ALLOY	P	PERF	.067	.0025
101	3003-H14		1		.125 T	HUENEME CAL	5640	24	BASE ALLOY				
102	3003-H14		1		.125 T	HUENEME CAL	5640	24	BASE ALLOY				
77	3003-H14		1		.125 T	HUENEME CAL	5300	36	BASE ALLOY BASE EDGE	P -	.0290 SEVER	.0121	.0021
79	3003-H14		1		.125 T	HUENEME CAL	5300 SED	36	BASE ALLOY BASE EDGE	P -	PERF EXTN	.076	.0019
103	3003-H14		1		.125 T	HUENEME CAL	5300	36	BASE ALLOY				
207	3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	6	BASE ALLOY	P		.0013 .0003	.0006
208	3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	6	BASE ALLOY	P+I		.0036 .0005	.0002
205	3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	24	BASE ALLOY			.0010 .0006	.0002
206	3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	24	BASE ALLOY			.0008 .0004	.0001
127	3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	65	BASE ALLOY	I		.0017 .0013	.0001
128	3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	65	BASE ALLOY	I		.0019 .0013	.0001
203	3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	65	BASE ALLOY	I		.0027 .0016	.0001
204	3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	65	BASE ALLOY	I		.0016 .0013	.0001
120	3003-H14	SHEET	1	STRIP	1X3X.065	MIAMI FLA	TOTAL	2	BASE ALLOY			.0030	
209	3003-H14	SHEET	1	TEN BLANK	.02 T	MIAMI FLA	TOTAL	3	BASE ALLOY BASE EDGE	I P	.0071 .0067	.0056	
106	3003-H14	SHEET	1	TEN BLANK	.025 T	MIAMI FLA	TW	12	BASE ALLOY				
210	3003-H14	SHEET	1	TEN BLANK	.02 T	MIAMI FLA	TOTAL	12	BASE ALLOY BASE EDGE	P+I P+I	.0145 .0073	.0102	

TABLE 1

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION			GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN	
107	3003-H14	SHEET	1	TEN BLANK	.025 T	MIAMI FLA	TW	24	BASE ALLOY			
109	3003-H14	SHEET	1	TEN BLANK	.025 T	MIAMI FLA	TW	36	BASE ALLOY	P	.0022 .0007	
110	3003-H14	SHEET	1	TEN BLANK	.025 T	MIAMI FLA	TW	36	BASE ALLOY	P	.0014 .0004	
111	3003-H14	SHEET	1	PANEL	3X9X.025	MIAMI FLA	TW	36	BASE ALLOY	I	.0047 .0026	
112	3003-H14	SHEET	1	PANEL	3X9X.025	MIAMI FLA	TW	36	BASE ALLOY	I	.0024 .0018	
126	3003-H14	SHEET	1	LOCK STRIP		PENSACOLA FLA	TOTAL	100	BASE ALLOY		.0042 .0014	
119	3003-H14	SHEET	1	LOCK STRIP		PENSACOLA FLA	A,I,	106	BASE ALLOY		.0042 .0021	
108	3003-H18	TUBE	1	TUBE	2.75 DIA	MIAMI FLA	TW	24	BASE ALLOY	P	.0015 .0011	
114	3003-H18	TUBE	1	TUBE	2.75 DIA	MIAMI FLA	TW	48	BASE ALLOY	P	.0026 .0011	
117	3003-0	SHEET	1	PANEL	8X10X.065	BLK ROCK HARBOR CONN	A,I,	3	BASE ALLOY			
122	3003-0	SHEET	1	PANEL	8X10X.065	BLK ROCK HARBOR CONN	TOTAL	3	BASE ALLOY			
118	3003-0	SHEET	1	PANEL	8X10X.065	BLK ROCK HARBOR CONN	A,I,	9	BASE ALLOY			
123	3003-0	SHEET	1	PANEL	8X10X.065	BLK ROCK HARBOR CONN	TOTAL	9	BASE ALLOY			
195	3004-H34	SHEET	1	TEN BLANK	.02 T	MIAMI FLA	TOTAL	3	BASE ALLOY BASE EDGE	P P	.0099 .0076 .0004	
196	3004-H34	SHEET	1	TEN BLANK	.02 T	MIAMI FLA	TOTAL	12	BASE ALLOY BASE EDGE	P P	.0087 .0058 .0406	
228	5050-H34	SHEET	1		.05 T	HUENEME CAL	2370	13	BASE ALLOY	P	.0040	.0001
229	5050-H34	SHEET	1		.05 T	HUENEME CAL	2370	13	BASE ALLOY	P	INCIP	.0001
230	5050-H34	SHEET	1		.05 T	HUENEME CAL	2370 SED	13	BASE ALLOY	P	INCIP	.0002
231	5050-H34	SHEET	1		.05 T	HUENEME CAL	2370	13	BASE ALLOY			
232	5050-H34	SHEET	1		.05 T	HUENEME CAL	2370	13	BASE ALLOY			

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
233	5050-H34	SHEET	1		.05 T	HUENEME CAL	2370	13	BASE ALLOY				
321	5052-	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	26	BASE ALLOY	P	.0050		
172	5052-	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	120	BASE ALLOY	P	.0070		
306	5052-H18 4356	SHEET	2	PANEL	12X3X.12	SKAGERAK	TOTAL	54	BASE ALLOY WELD BEAD		.0000		
241	5052-H22		1			HUENEME CAL	5300	36	BASE ALLOY				.0004
250	5052-H32		1			HUENEME CAL	2340	6	BASE ALLOY	UNI			
251	5052-H32		1			HUENEME CAL	2340 SED	6	BASE ALLOY	P	.026		.0001
263	5052-H32		1			HUENEME CAL	2340	6	BASE ALLOY				
264	5052-H32		1			HUENEME CAL	2340	6	BASE ALLOY				
268	5052-H32		1			HUENEME CAL	2340	6	BASE ALLOY				
249	5052-H32		1			HUENEME CAL	6780	13	BASE ALLOY BASE EDGE	P EXFL	.039		
252	5052-H32		1			HUENEME CAL	2370	13	BASE ALLOY BASE EDGE	P EXFL	DEEP		
261	5052-H32		1			HUENEME CAL	6780	13	BASE ALLOY				
262	5052-H32		1			HUENEME CAL	6780	13	BASE ALLOY				
265	5052-H32		1			HUENEME CAL	2370	13	BASE ALLOY				
266	5052-H32		1			HUENEME CAL	2370	13	BASE ALLOY				
267	5052-H32		1			HUENEME CAL	6780	13	BASE ALLOY				
269	5052-H32		1			HUENEME CAL	2370	13	BASE ALLOY				
307	5052-H32	PLATE	1	PANEL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	<.01	<.01	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS		LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN		
308	5052-H32	PLATE	1	PANEL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	<.01	<.01	
286	5052-H34	SHEET	1	PANEL	8X10X.065	BLK ROCK HARBOR CONN	A,I.	3	BASE ALLOY				
291	5052-H34	SHEET	1	PANEL	8X10X.065	BLK ROCK HARBOR CONN	TOTAL	3	BASE ALLOY				
287	5052-H34	SHEET	1	PANEL	8X10X.065	BLK ROCK HARBOR CONN	A,I.	9	BASE ALLOY				
292	5052-H34	SHEET	1	PANEL	8X10X.065	BLK ROCK HARBOR CONN	TOTAL	9	BASE ALLOY				
294	5052-H34	SHEET	1	PANEL	4X9X.065	CORPUS CHRISTI TEX	FLUME	22	BASE ALLOY		.0140	.0056	.0009
298	5052-H34		1	PANEL		EAST RIVER HARBOR NY	TOTAL	24	BASE ALLOY				
299	5052-H34		1	PANEL		EAST RIVER HARBOR NY	A,I.	24	BASE ALLOY				
317	5052-H34	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.016		
318	5052-H34	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.0060		
319	5052-H34	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY		NAA		
320	5052-H34	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.0050		
293	5052-H34	SHEET	1	PANEL	4X9X.065	FREEPORT TEX	FLUME	7	BASE ALLOY				.0002
313	5052-H34	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.0050		
314	5052-H34	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.020		
315	5052-H34	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.0060		
316	5052-H34	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.012		
309	5052-H34	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY		NAA		
310	5052-H34	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY		NAA		
311	5052-H34	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY		NAA		
312	5052-H34	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY		NAA		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MDS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
253	5052-H34	SHEET	1		.05 T	HUENEME CAL	5640	4	BASE ALLOY	P	SEVR		.0001
254	5052-H34	SHEET	1		.05 T	HUENEME CAL	5640	4	BASE ALLOY	P			
270	5052-H34	SHEET	1		.05 T	HUENEME CAL	5640	4	BASE ALLOY				
258	5052-H34	SHEET	1		.05 T	HUENEME CAL	2340	6	BASE ALLOY	P	.0012		.0001
259	5052-H34	SHEET	1		.05 T	HUENEME CAL	2370	13	BASE ALLOY	P	INCIP		.0002
260	5052-H34	SHEET	1		.05 T	HUENEME CAL	2370 SED	13	BASE ALLOY	P	INCIP		.0002
272	5052-H34	SHEET	1		.05 T	HUENEME CAL	2370	13	BASE ALLOY				
255	5052-H34	SHEET	1		.05 T	HUENEME CAL	5640	25	BASE ALLOY		.0000		
256	5052-H34	SHEET	1		.05 T	HUENEME CAL	5640	25	BASE ALLOY	P			
257	5052-H34	SHEET	1		.05 T	HUENEME CAL	5640 SED	25	BASE ALLOY	P			
271	5052-H34	SHEET	1		.05 T	HUENEME CAL	5640	25	BASE ALLOY				
273	5052-H34	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TW	3	BASE ALLOY				
274	5052-H34	SHEET	1	PANEL	6X9X.065	MIAMI FLA	TW	3	BASE ALLOY				
275	5052-H34	SHEET	1	PANEL	8X9X.065	MIAMI FLA	TW	3	BASE ALLOY				
289	5052-H34	SHEET	1	STRIP	1X3X.065	MIAMI FLA	TOTAL	3	BASE ALLOY		.0020		
276	5052-H34	SHEET	1	PANEL	6X9X.065	MIAMI FLA	TW	6	BASE ALLOY				
277	5052-H34	SHEET	1	TEN BLANK	.025 T	MIAMI FLA	TW	12	BASE ALLOY				
278	5052-H34	SHEET	1	TEN BLANK	.025 T	MIAMI FLA	TW	24	BASE ALLOY				
279	5052-H34	SHEET	1	PANEL	9X9X.065	MIAMI FLA	TW	24	BASE ALLOY				
300	5052-H34		1	PANEL		MIAMI FLA	TOTAL	24	BASE ALLOY				
301	5052-H34		1	PANEL		MIAMI FLA	A.I.	24	BASE ALLOY				

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
280	5052-H34	SHEET	1	TEN BLANK	.025 T	MIAMI FLA	TW	36	BASE ALLOY	P	.0010	.0004	
281	5052-H34	SHEET	1	TEN BLANK	.025 T	MIAMI FLA	TW	36	BASE ALLOY	P	.0009	.0003	
282	5052-H34	SHEET	1	PANEL	3X9X.025	MIAMI FLA	TW	36	BASE ALLOY	P	.0023	.0016	
283	5052-H34	SHEET	1	PANEL	3X9X.025	MIAMI FLA	TW	36	BASE ALLOY	P	.0020	.0013	
284	5052-H34	SHEET	1	PANEL	9X9X.065	MIAMI FLA	TW	48	BASE ALLOY				
302	5052-H34			1 PANEL		MOBILE ALA	TOTAL	24	BASE ALLOY				
303	5052-H34			1 PANEL		MOBILE ALA	A.I.	24	BASE ALLOY				
296	5052-H34			1 PANEL		MONTREAL QUE	TOTAL	12	BASE ALLOY				
297	5052-H34			1 PANEL		MONTREAL QUE	A.I.	12	BASE ALLOY				
304	5052-H34			1 PANEL		NEW ORLEANS LA	TOTAL	24	BASE ALLOY				
305	5052-H34			1 PANEL		NEW ORLEANS LA	A.I.	24	BASE ALLOY				
288	5052-H34	SHEET	1	LOCK STRIP	.065 T	PENSACOLA FLA	A.I.	100	BASE ALLOY		.0084	.0015	
295	5052-H34	SHEET	1	LOCK STRIP	.065 T	PENSACOLA FLA	TOTAL	100	BASE ALLOY		.0014	.0036	
285	5052-0	SHEET	1	PANEL	8X10X.065	BLK ROCK HARBOR CONN	A.I.	3	BASE ALLOY				
290	5052-0	SHEET	1	PANEL	8X10X.065	BLK ROCK HARBOR CONN	TOTAL	3	BASE ALLOY				
234	5052-0	SHEET	1		.065 T	HUENEME CAL	5640	4	BASE ALLOY		.0000		.0037
235	5052-0	SHEET	1		.065 T	HUENEME CAL	5640 SED	4	BASE ALLOY		.0000		.0040
243	5052-0	SHEET	1		.065 T	HUENEME CAL	2340	6	BASE ALLOY		.0000		.0018
244	5052-0	SHEET	1		.065 T	HUENEME CAL	2340 SED	6	BASE ALLOY	P	INCIP		.0001
247	5052-0	SHEET	1		.065 T	HUENEME CAL	5	6	BASE ALLOY	P	INCIP		.0012
248	5052-0	SHEET	1		.065 T	HUENEME CAL	5	12	BASE ALLOY	P	.0050		.0006

TABLE 1

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR	
						LOCATION	DEPTH-FT	MOB	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.		MEAN
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236	5052-n	SHEET	1		.065 T	HUENEME CAL	6780	13	BASE ALLOY		.0000		.0045
237	5052-n	SHEET	1		.065 T	HUENEME CAL	6780 SED	13	BASE ALLOY		.0000		.0012
245	5052-n	SHEET	1		.065 T	HUENEME CAL	2370	13	BASE ALLOY		.0000		.0004
246	5052-n	SHEET	1		.065 T	HUENEME CAL	2370 SED	13	BASE ALLOY		.0000		.0003
238	5052-n	SHEET	1		.065 T	HUENEME CAL	5640	25	BASE ALLOY		PERF		.0022
239	5052-n	SHEET	1		.065 T	HUENEME CAL	5640 SED	25	BASE ALLOY		.0000		.0032
240	5052-n	SHEET	1		.065 T	HUENEME CAL	5300	36	BASE ALLOY		.0000		.0031
242	5052-n	SHEET	1		.065 T	HUENEME CAL	5300 SED	36	BASE ALLOY		.0000		.0015
328	5052-n	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0013	.0007	
	5554								HEAT AFFECTED ZONE	P	.0017	.0007	
									WELD BEAD	P	.0013	.0006	
									KNIFE LINE ATTACK		.0259		
329	5052-n	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0025	.0012	
	4043								HEAT AFFECTED ZONE	P	.0028	.0008	
									WELD BEAD	P		.0004	
									KNIFE LINE ATTACK		NAA		
330	5052-n	PLATE	3	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0011	.0006	
	4556								HEAT AFFECTED ZONE	P	.0033	.0008	
									WELD BEAD	P	.0020	.0006	
	5454-n								KNIFE LINE ATTACK		.0114		
									OTHER ALLOY BASE	P	.0011	.0006	
									HEAT AFFECTED ZONE	P		.0006	
331	5052-n	PLATE	3	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0015	.0008	
	5554								HEAT AFFECTED ZONE	P	.0011	.0008	
									WELD BEAD	P	.0016	.0007	
	5454-n								KNIFE LINE ATTACK		.0241		
									OTHER ALLOY BASE	P	.0015	.0007	
									HEAT AFFECTED ZONE	P		.0006	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GHAVI, DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
										MAX.	MEAN	
332	5052-O 4043 5454-O	PLATE	3	PANEL	4X9X.375	MIAMI FLA	TOTAL 24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK OTHER ALLOY BASE HEAT AFFECTED ZONE	P P ID P P	.0057 .0014 .0041 NAA .0006 .0006	.0014 .0008 .0012 .0006 .0006	
323	5052-O 5554	PLATE	2	PANEL	3X9X.375	MIAMI FLA	TOTAL 60	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P P P	.0014 .0020 .0059 .036	.0008 .0009 .0022 	
324	5052-O 4043	PLATE	2	PANEL	3X9X.375	MIAMI FLA	TOTAL 60	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P ID P	.0084 .0010 .0029 NAA	.0012 .0008 .0025 	
325	5052-O 5556 5454-O	PLATE	3	PANEL	3X9X.375	MIAMI FLA	TOTAL 60	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK OTHER ALLOY BASE	P P P P P	.0013 .0011 .0031 NAA .0047	.0008 .0005 .0013 .0009 .0009	
326	5052-O 5554 5454-O	PLATE	3	PANEL	3X9X.375	MIAMI FLA	TOTAL 60	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK OTHER ALLOY BASE HEAT AFFECTED ZONE	P P P P P P	.0155 .0090 .0036 .0270 .0025 .0011	.0010 .0016 .0005 .0006 .0006	
327	5052-O 4043 5454-O	PLATE	3	PANEL	3X9X.375	MIAMI FLA	TOTAL 60	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK OTHER ALLOY BASE HEAT AFFECTED ZONE	P P ID P P P	.0086 .0008 .0013 NAA .0187 .0002	.0008 .0006 .0008 .0009 .0002	
378	5056-	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL 6	BASE ALLOY	P	.0007		
379	5056-	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL 60	BASE ALLOY	P	.0070		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVIM. DATA RATE IN/YR
								DEPTH-INCHES				
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	MAX.	MEAN	
380	5056-	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	120	BASE ALLOY	P	.026	
363	5056-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.020	
367	5056-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.020	
371	5056-	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.030	
375	5056-	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.037	
364	5056-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.039	
368	5056-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.0010	
372	5056-	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.017	
376	5056-	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.072	
365	5056-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.034	
369	5056-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY		NAA	
373	5056-	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.099	
377	5056-	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.063	
366	5056-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.035	
370	5056-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.011	
374	5056-	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.050	
348	5056-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.0030	
356	5056-	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.060	
360	5056-	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL	12	BASE ALLOY		NAA	
349	5056-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY		NAA	
353	5056-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY		NAA	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION			GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN	
357	5056-	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL 24	BASE ALLOY		NAA	
361	5056-	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL 24	BASE ALLOY	P	.0030	
350	5056-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 60	BASE ALLOY		.012	
354	5056-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 60	BASE ALLOY	P	.010	
358	5056-	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL 60	BASE ALLOY	P	.016	
362	5056-	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL 60	BASE ALLOY	P	.015	
351	5056-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 120	BASE ALLOY	P	.150	
355	5056-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 120	BASE ALLOY	P	.024	
359	5056-	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL 120	BASE ALLOY	P	.041	
352	5056-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 124	BASE ALLOY		NAA	
333	5056-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 12	BASE ALLOY	P	.0070	
337	5056-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 12	BASE ALLOY	P	.010	
341	5056-	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL 12	BASE ALLOY	P	.013	
345	5056-	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL 12	BASE ALLOY	P	.028	
334	5056-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 24	BASE ALLOY	P	.010	
338	5056-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 24	BASE ALLOY	P	.010	
342	5056-	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL 24	BASE ALLOY	P	.0070	
346	5056-	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL 24	BASE ALLOY	P	.068	
335	5056-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 60	BASE ALLOY	P	.0070	
339	5056-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 60	BASE ALLOY	P	.0050	
343	5056-	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL 60	BASE ALLOY	P	.035	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVIM. DATA RATE IN/YR	
						LOCATION	DEPTH-FT	MOB	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.		MEAN
347	5056-	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.017		
336	5056-	PLATE	1	PANFL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.0050		
340	5056-	PLATE	1	PANFL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.028		
344	5056-	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.032		
410	5083-	PLATE	1	PANFL	8X8X.25	BRIXHAM ENGLAND	TOTAL	6	BASE ALLOY	P	.0060		
411	5083-	PLATE	1	PANFL	8X8X.25	BRIXHAM ENGLAND	TOTAL	60	BASE ALLOY	P	.0030		
412	5083-	PLATE	1	PANFL	8X8X.25	BRIXHAM ENGLAND	TOTAL	120	BASE ALLOY	P	.034		
1114	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.013		
1118	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.029		
1122	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY		NAA		
1115	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.0050		
1119	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.038		
1123	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY		NAA		
1116	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY		NAA		
1120	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.047		
1124	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.0050		
1117	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.0060		
1121	5083-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.055		
1103	5083-	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.0030		
1107	5083-	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.0040		
1111	5083-	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY		NAA		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION			GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN	
1104	5083-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 24	BASE ALLOY		NAA	
1108	5083-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 24	BASE ALLOY	P	.023	
1112	5083-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 24	BASE ALLOY	P	.011	
1105	5083-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 60	BASE ALLOY	P	.012	
1109	5083-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 60	BASE ALLOY	P	.016	
1113	5083-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 60	BASE ALLOY	P	.0070	
1106	5083-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 120	BASE ALLOY	P	.0070	
1110	5083-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL 120	BASE ALLOY	P	.022	
475	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 12	BASE ALLOY	P	.012	
1096	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 12	BASE ALLOY	P	.016	
1100	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 12	BASE ALLOY	P	.022	
476	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 24	BASE ALLOY	P	.0090	
1097	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 24	BASE ALLOY	P	.013	
1101	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 24	BASE ALLOY	P	.0010	
1094	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 60	BASE ALLOY	P	.0060	
1098	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 60	BASE ALLOY	P	.0060	
1102	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 60	BASE ALLOY	P	.0070	
1095	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 120	BASE ALLOY		NAA	
1099	5083-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL 120	BASE ALLOY	P	.010	
435	5083-		1			HUENEME CAL	5 6	BASE ALLOY	ETCH		.0010
437	5083-		1			HUENEME CAL	5 12	BASE ALLOY	ETCH		.0006

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI, DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
429	5083-		1			HUENEME CAL	2370	13	BASE ALLOY		.0000		.0010
432	5083-		1			HUENEME CAL	2370 SED	13	BASE ALLOY	P	.017		.0004
458	5083-H113 4356	PLATE	2	PANEL	4X12X.25	HARBOR ISLAND NC	TW	60	BASE ALLOY WELD BEAD		NAA		
462	5083-H113 4356	PLATE	2	PANEL	4X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY WELD BEAD		NAA		
413	5083-H113 4052	PLATE	2		.5 T	HUENEME CAL	5640	4	BASE ALLOY WELD BEAD	P	.0275	.0171	.0001
414	5083-H113 4052	PLATE	2		.5 T	HUENEME CAL	5640 SED	4	BASE ALLOY WELD BEAD	P	.0650	.0537	.0009
445	5083-H113 4052	PLATE	2		.5 T	HUENEME CAL	5640	4	BASE ALLOY WELD BEAD				
415	5083-H113	PLATE	1		.5 T	HUENEME CAL	5900	6	BASE ALLOY	P	INCIP		.0001
416	5083-H113	PLATE	1		.5 T	HUENEME CAL	5900 SED	6	BASE ALLOY	P	.0122	.0095	.0003
417	5083-H113 5183	PLATE	2		.5 T	HUENEME CAL	5900	6	BASE ALLOY WELD BEAD	P	.0040	.0021	.0001
418	5083-H113 5183	PLATE	2		.5 T	HUENEME CAL	5900 SED	6	BASE ALLOY WELD BEAD	P	.0040	.0021	.0001
424	5083-H113	PLATE	1		.5 T	HUENEME CAL	2340	6	BASE ALLOY BASE EDGE	P •	.0230 YES		.0005
425	5083-H113 4052	PLATE	2		.5 T	HUENEME CAL	2340	6	BASE ALLOY WELD BEAD	P	.0571	.0263	.0003
426	5083-H113	PLATE	1		.5 T	HUENEME CAL	2340 SED	6	BASE ALLOY BASE EDGE	P •	.0140 YES	.0125	.0006

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
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427	5083-H113 5052	PLATE	2		.5 T	HUENEME CAL	2340 SED	6	BASE ALLOY WELD BEAD	P	.0550	.0256	.0007
434	5083-H113	PLATE	1		.5 T	HUENEME CAL	5	6	BASE ALLOY BASE EDGE	P	INCIP YES		.0012
436	5083-H113 5183	PLATE	2		.5 T	HUENEME CAL	5	6	BASE ALLOY WELD BEAD	ETCH			.0009
444	5083-H113 5052	PLATE	2		.5 T	HUENEME CAL	6780	6	BASE ALLOY WELD BEAD				
449	5083-H113	PLATE	1		.5 T	HUENEME CAL	2340	6	BASE ALLOY				
450	5083-H113 5052	PLATE	2		.5 T	HUENEME CAL	2340	6	BASE ALLOY WELD BEAD				
453	5083-H113	PLATE	1		.5 T	HUENEME CAL	5	6	BASE ALLOY				
454	5083-H113 5052	PLATE	2		.5 T	HUENEME CAL	5	6	BASE ALLOY WELD BEAD				
419	5083-H113	PLATE	1		.5 T	HUENEME CAL	6780	13	BASE ALLOY BASE EDGE	P	.0591 SLGHT	.0526	.004
420	5083-H113	PLATE	1		.5 T	HUENEME CAL	6780 SED	13	BASE ALLOY BASE EDGE	P	.0680 YES	.050	.0007
421	5083-H113 5052	PLATE	2		.5 T	HUENEME CAL	6780	13	BASE ALLOY BASE EDGE WELD BEAD	P	.0921 SLGHT	.0729	.0021
422	5083-H113 5052	PLATE	2		.5 T	HUENEME CAL	6780 SED	13	BASE ALLOY BASE EDGE WELD BEAD	P	.0660 SLGHT	.0490	.0011
428	5083-H113	PLATE	1		.5 T	HUENEME CAL	2370	13	BASE ALLOY	P	INCIP		.0006

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				CHAVI, DATA ***** RATE IN/YR	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
430	5083-H113 9052	PLATE	2		.5 T	HUENEME CAL	2370	13	BASE ALLOY BASE EDGE WELD BEAD	P -	.058 YES	.0421	.0008
431	5083-H113	PLATE	1		.5 T	HUENEME CAL	2370 SED	13	BASE ALLOY	P	INCIP		.0006
433	5083-H113 9052	PLATE	2		.5 T	HUENEME CAL	2370 SED	13	BASE ALLOY BASE EDGE WELD BEAD KNIFE LINE ATTACK	P -	.048 YES	.019	.0008
438	5083-H113	PLATE	1		.5 T	HUENEME CAL	5	13	BASE ALLOY	ETCH			.0004
439	5083-H113	PLATE	1		.5 T	HUENEME CAL	5	13	BASE ALLOY	P	.0360	.0311	.0007
440	5083-H113 5183	PLATE	2		.5 T	HUENEME CAL	5	13	BASE ALLOY WELD BEAD	P	.0340	.0328	.0005
441	5083-H113	PLATE	1		.5 T	HUENEME CAL	5	13	BASE ALLOY	P	.0110	.0070	.0003
442	5083-H113 5183	PLATE	2		.5 T	HUENEME CAL	5	13	BASE ALLOY WELD BEAD	P	.0090	.0062	.0003
443	5083-H113 9052	PLATE	2		.5 T	HUENEME CAL	6780	13	BASE ALLOY WELD BEAD				
446	5083-H113	PLATE	1		.5 T	HUENEME CAL	6780	13	BASE ALLOY				
447	5083-H113 9052	PLATE	2		.5 T	HUENEME CAL	6780	13	BASE ALLOY WELD BEAD				
451	5083-H113	PLATE	1		.5 T	HUENEME CAL	2370	13	BASE ALLOY				
452	5083-H113 9052	PLATE	2		.5 T	HUENEME CAL	2370	13	BASE ALLOY WELD BEAD				
473	5083-H113 9052	PLATE	2		.5 T	HUENEME CAL	5640	24	BASE ALLOY BASE EDGE WELD BEAD	P -	.0831 YES	.0643	.0016

TABLE I

TOENT, NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI, DATA RATE IN/YR	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN			
448	5083-H113 5052	PLATE	2		.5 T	HUENEME CAL	5640	24	BASE ALLOY WELD BEAD				
389	5083-H113	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0013	.0008	
382	5083-H113 5356	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	12	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P P	.0009 .0011 .0027	.0006 .0007	
390	5083-H113	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0008	.0008	
384	5083-H113 5356	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P P	.0009 .0010 .0019	.0004 .0007 .0007	
391	5083-H113	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0033	.0015	
386	5083-H113 5356	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	36	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P+81 P ID	.0038 .0009 .0010 .012	.0012 .0004 .0004	
392	5083-H113	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0010	.0005	
388	5083-H113 5356	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	48	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	P P ID	.0014 .0016 .0044	.0008 .0008 .0005	
393	5083-H113	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0081	.0014	
394	5083-H113	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	60	BASE ALLOY	P+81	.0148	.0036	
395	5083-H113	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.0370		
463	5083-H116	PLATE	1	PANEL	3X12X.25	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY				.0008
466	5083-H116	PLATE	1	PANEL	3X12X.25	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY				.0007
469	5083-H116	PLATE	1	PANEL	3X12X.5	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY				.0009

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER.	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				CHAVI, DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
472	5083-H116	PLATE	1	PANEL	3X12X.5	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY				.0012
464	5083-H116	PLATE	1	PANEL	3X12X.25	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY				.0005
467	5083-H116	PLATE	1	PANEL	3X12X.25	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY				.0005
470	5083-H116	PLATE	1	PANEL	3X12X.5	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY				.0005
473	5083-H116	PLATE	1	PANEL	3X12X.5	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY				.0006
465	5083-H116	PLATE	1	PANEL	3X12X.25	WRIGHTSVILLE BEACH NC	TOTAL	24	BASE ALLOY BASE EDGE	P LUCL	INCIP SLGHT		.0004
468	5083-H116	PLATE	1	PANEL	3X12X.25	WRIGHTSVILLE BEACH NC	TOTAL	24	BASE ALLOY	P	SEVR		.0008
471	5083-H116	PLATE	1	PANEL	3X12X.5	WRIGHTSVILLE BEACH NC	TOTAL	24	BASE ALLOY BASE EDGE	P LUCL	INCIP MOD		.0005
474	5083-H116	PLATE	1	PANEL	3X12X.5	WRIGHTSVILLE BEACH NC	TOTAL	24	BASE ALLOY	P	MINOR		.0004
399	5083-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	12	BASE ALLOY	P		.0013	.0007
406	5083-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	12	BASE ALLOY	P			.0003
400	5083-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	24	BASE ALLOY	P		.0118	.0041
407	5083-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	24	BASE ALLOY	P		.0020	.0020
401	5083-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	48	BASE ALLOY	P		.0014	.0008
408	5083-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	48	BASE ALLOY	P		.0008	.0004
409	5083-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	60	BASE ALLOY	P		.0130	.0032
396	5083-H343	SHEET	1	PANEL	6X9X.90	MIAMI FLA	TOTAL	12	BASE ALLOY	P		.0013	.0008
402	5083-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	12	BASE ALLOY	P		.0006	.0003
397	5083-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	24	BASE ALLOY	P		.0008	.0008
403	5083-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	24	BASE ALLOY		NAA		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR	
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
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398	5083-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0051	.0009	
404	5083-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	48	BASE ALLOY		NAA		
405	5083-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	60	BASE ALLOY	P	.0041	.0020	
455	5083-O	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TW	12	BASE ALLOY	P	.0251	.0079	.0001
459	5083-O	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.0319	.0100	.0002
456	5083-O	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TW	24	BASE ALLOY	P	.0073	.0039	.0001
460	5083-O	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0189	.0060	.0001
457	5083-O	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TW	60	BASE ALLOY	P	.0109	.0027	.0001
461	5083-O	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0073	.0003	.0001
381	5083-O	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0020	.0011	
	4356								HEAT AFFECTED ZONE	P	.0007		
									WELD BEAD	P	.0021	.0010	
383	5083-O	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0012	.0007	
	5356								HEAT AFFECTED ZONE	P	.0008	.0006	
									WELD BEAD	P	.0015	.0007	
									KNIFE LINE ATTACK		.0112		
385	5083-O	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0010	.0007	
	5356								HEAT AFFECTED ZONE	I	.0073	.0056	
									WELD BEAD	ID	.0028	.0004	
									KNIFE LINE ATTACK		.016		
387	5083-O	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0006	.0004	
	5356								HEAT AFFECTED ZONE	P	.0004	.0004	
									WELD BEAD	ID	.0008	.0005	
1231	5086-	SHEET	1		.035 T	HUENEME CAL	5	6	BASE ALLOY	P	INCIP		.0012
1232	5086-	SHEET	1		.035 T	HUENEME CAL	5	12	BASE ALLOY	P	.0050		.0005
1229	5086-	SHEET	1		.035 T	HUENEME CAL	2370	13	BASE ALLOY		.0000		.0008

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVIM. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MDS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
1230	5086-	SHEET	1		.035 T	HUENEWE CAL	2370 SED	13	BASE ALLOY		.0000		.0007
1287	5086-H112	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TW	12	BASE ALLOY	P	.0070	.0036	.0002
1290	5086-H112	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.0120	.0082	.0003
1288	5086-H112	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TW	24	BASE ALLOY	P	.0087	.0011	.0001
1291	5086-H112	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0180	.0020	.0002
1289	5086-H112	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TW	60	BASE ALLOY	P	.0325	.0041	.0001
1292	5086-H112	PLATE	1	PANEL	4X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0200	.0045	.0001
1264	5086-H112	ANGLE	1		3X3X.5	HUENEWE CAL	5900	6	BASE ALLOY	P	.021	.0125	.0001
1265	5086-H112	ANGLE	1		3X3X.5	HUENEWE CAL	5	6	BASE ALLOY	P	INCIP		.0011
1290	5086-H112	ANGLE	1		3X3X.5	HUENEWE CAL	5	6	BASE ALLOY				
1266	5086-H112	ANGLE	1		3X3X.5	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.020		.0001
1267	5086-H112	ANGLE	1		3X3X.5	TONGUE OF OCEAN	4200 SED	12	BASE ALLOY	P	.020		.0001
1308	5086-H116	PLATE	1	PANEL	12X3X.25	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY				.0008
1311	5086-H116	PLATE	1	PANEL	12X3X.25	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY				.0007
1320	5086-H116	PLATE	1	PANEL	12X3X.75	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY				.0010
1323	5086-H116	PLATE	1	PANEL	12X3X.75	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY				.0011
1309	5086-H116	PLATE	1	PANEL	12X3X.25	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY				.0005
1312	5086-H116	PLATE	1	PANEL	12X3X.25	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY				.0006
1321	5086-H116	PLATE	1	PANEL	12X3X.75	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY				.0004
1324	5086-H116	PLATE	1	PANEL	12X3X.75	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY				.0006
1310	5086-H116	PLATE	1	PANEL	12X3X.25	WRIGHTSVILLE BEACH NC	TOTAL	24	BASE ALLOY BASE EDGE	P -	SLIGHT MOD		.0004

TABLE 1

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX. MEAN		
1313	5086-H116	PLATE	1	PANFL	12X3X.25	WRIGHTSVILLE BEACH NC TOTAL	24	BASE ALLOY BASE EDGE	UNI -	SLGHT		.0004
1322	5086-H116	PLATE	1	PANEL	12X3X.75	WRIGHTSVILLE BEACH NC TOTAL	24	BASE ALLOY BASE EDGE	UNI LOCAL	SLGHT		.0003
1325	5086-H116	PLATE	1	PANEL	12X3X.75	WRIGHTSVILLE BEACH NC TOTAL	24	BASE ALLOY BASE EDGE	UNI -	MOD		.0004
1314	5086-H117	PLATE	1	PANEL	8X3X.25	WRIGHTSVILLE BEACH NC TOTAL	6	BASE ALLOY				.0009
1317	5086-H117	PLATE	1	PANFL	8X3X.25	WRIGHTSVILLE BEACH NC TOTAL	6	BASE ALLOY				.0008
1315	5086-H117	PLATE	1	PANEL	8X3X.25	WRIGHTSVILLE BEACH NC TOTAL	12	BASE ALLOY				.0005
1318	5086-H117	PLATE	1	PANFL	8X3X.25	WRIGHTSVILLE BEACH NC TOTAL	12	BASE ALLOY				.0005
1316	5086-H117	PLATE	1	PANFL	8X3X.25	WRIGHTSVILLE BEACH NC TOTAL	24	BASE ALLOY BASE EDGE	UNI -	NAA		.0004
1319	5086-H117	PLATE	1	PANFL	8X3X.25	WRIGHTSVILLE BEACH NC TOTAL	24	BASE ALLOY BASE EDGE	UNI -	NAA		.0004
1125	5086-H18 4356	SHEET	2	PANEL	3X12X.2	SKAGERAK	TOTAL	54	BASE ALLOY WELD BEAD		.0000	
1233	5086-H32	SHEET	1		.065 T	HUENEME CAL	5900	6	BASE ALLOY	P	.033 .0192	.0001
1234	5086-H32	SHEET	1		.065 T	HUENEME CAL	5900 SED	6	BASE ALLOY	P	.023 .0169	.0002
1237	5086-H32	SHEET	1		.065 T	HUENEME CAL	2340	6	BASE ALLOY	P	.0050	.0001
1240	5086-H32	SHEET	1		.065 T	HUENEME CAL	5	6	BASE ALLOY BASE EDGE	P -	INCIP YES	.0010
1271	5086-H32	SHEET	1		.065 T	HUENEME CAL	5	6	BASE ALLOY			
1238	5086-H32	SHEET	1		.065 T	HUENEME CAL	2370	13	BASE ALLOY	P	INCIP	.0004
1239	5086-H32	SHEET	1		.065 T	HUENEME CAL	2370 SED	13	BASE ALLOY	P	INCIP	.0005

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
1241	5086-H32	SHEET	1		.065 T	HUENEME CAL	5	13	BASE ALLOY	P	.020	.0140	.0004
1242	5086-H32	SHEET	1		.065 T	HUENEME CAL	5	13	BASE ALLOY	P	.026	.0220	.0002
1268	5086-H32	SHEET	1		.065 T	HUENEME CAL	2370	13	BASE ALLOY				
1269	5086-H32	SHEET	1		.065 T	HUENEME CAL	2370	13	BASE ALLOY				
1270	5086-H32	SHEET	1		.065 T	HUENEME CAL	2370	13	BASE ALLOY				
1294	5086-H32	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	12	BASE ALLOY	P			.0006
	5356								HEAT AFFECTED ZONE	P	.0014		
									WELD BEAD	P	.0010	.0004	
									KNIFE LINE ATTACK		.0093		
1296	5086-H32	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY	P			.0006
	5356								HEAT AFFECTED ZONE	P			.0006
									WELD BEAD	P	.0034	.0006	
									KNIFE LINE ATTACK		.0156		
1298	5086-H32	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0014	.0009	
	5356								HEAT AFFECTED ZONE	P	.0007	.0004	
									WELD BEAD	ID	.0047	.0005	
									KNIFE LINE ATTACK		.0109		
1126	5086-H32	PLATE	1	PANFL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.010	.010	
1127	5086-H32	PLATE	1	PANFL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.030	.030	
1235	5086-H32		1		.065 T	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.047		.0001
									BASE EDGE	-	YES		
1236	5086-H32		1		.065 T	TONGUE OF OCEAN	4200 SED	12	BASE ALLOY	P+BL	.029		.0001
1243	5086-H34	SHEET	1		.125 T	HUENEME CAL	5640	4	BASE ALLOY	ETCH			.0001
1244	5086-H34	SHEET	2		.125 T	HUENEME CAL	5640	4	BASE ALLOY		NAA		
	5366								WELD BEAD				
1245	5086-H34	SHEET	1		.125 T	HUENEME CAL	5640 SED	4	BASE ALLOY	P	.030	.0078	.0014
									BASE EDGE	-	YES		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
1272	5086-H34 8566	SHEET	2		.125 T	HUENEME CAL	5640	4	BASE ALLOY WELD BEAD				
1273	5086-H34	SHEET	1		.125 T	HUENEME CAL	5640	4	BASE ALLOY				
1246	5086-H34	SHEET	1		.125 T	HUENEME CAL	5900	6	BASE ALLOY	P	.0030	.0016	.0002
1247	5086-H34	SHEET	1		.125 T	HUENEME CAL	5900 SED	6	BASE ALLOY BASE EDGE	P -	.0060 YES	.0032	.0007
1256	5086-H34	SHEET	1		.125 T	HUENEME CAL	2340	6	BASE ALLOY BASE EDGE	P -	.029 SLIGHT	.0036	.0007
1257	5086-H34	SHEET	1		.125 T	HUENEME CAL	2340 SED	6	BASE ALLOY BASE EDGE	P -	.053 SEVER	.040	.0011
1260	5086-H34	SHEET	1		.125 T	HUENEME CAL	5	6	BASE ALLOY	P	.0060	.004	.0012
1277	5086-H34	SHEET	1		.125 T	HUENEME CAL	2340	6	BASE ALLOY				
1279	5086-H34	SHEET	1		.125 T	HUENEME CAL	5	6	BASE ALLOY				
1248	5086-H34	SHEET	1		.125 T	HUENEME CAL	6780	13	BASE ALLOY	P	INCIP		.0006
1249	5086-H34	SHEET	1		.125 T	HUENEME CAL	6780 SED	13	BASE ALLOY	P	.0110	.0040	.0008
1258	5086-H34	SHEET	1		.125 T	HUENEME CAL	2370	13	BASE ALLOY	P	INCIP		.0006
1259	5086-H34	SHEET	1		.125 T	HUENEME CAL	2370 SED	13	BASE ALLOY	P	.017	.011	.0013
1261	5086-H34	SHEET	1		.125 T	HUENEME CAL	5	13	BASE ALLOY	P	.0270	.0227	.0003
1262	5086-H34	SHEET	1		.125 T	HUENEME CAL	5	13	BASE ALLOY	ETCH			.0003
1263	5086-H34	SHEET	1		.125 T	HUENEME CAL	5	13	BASE ALLOY	P	.0090	.0062	.0003
1274	5086-H34	SHEET	1		.125 T	HUENEME CAL	6780	13	BASE ALLOY				
1278	5086-H34	SHEET	1		.125 T	HUENEME CAL	2370	13	BASE ALLOY				
1250	5086-H34	SHEET	1		.125 T	HUENEME CAL	5640	24	BASE ALLOY BASE EDGE	P -	.072 YES	.046	.0020

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI, DATA RATE IN/YR
						LOCATION	DEPTH-FT	MO6	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
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1251	5086-H34	SHEET	2		.125 T	HUENEME CAL	5640	24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	P -	PEHF YES YES		
	5566												
1275	5086-H34	SHEET	1		.125 T	HUENEME CAL	5640	24	BASE ALLOY				
1252	5086-H34	SHEET	1		.125 T	HUENEME CAL	5300	36	BASE ALLOY BASE EDGE	P -	.073 SEVER	.0648	.0009
1253	5086-H34	SHEET	1		.125 T	HUENEME CAL	5300 SED	36	BASE ALLOY	P	.075	.0636	.0012
1276	5086-H34	SHEET	1		.125 T	HUENEME CAL	5300	36	BASE ALLOY				
1301	5086-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0017	.0006	
1302	5086-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	12	BASE ALLOY	UP	.0061	.0039	
1303	5086-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0044	.0011	
1304	5086-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0006	.0003	
1305	5086-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	48	BASE ALLOY	UP	.0191	.0038	
1306	5086-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	60	BASE ALLOY	UP	.0158	.0020	
1307	5086-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.0310		
1128	5086-H34	SHEET	1	PANEL	1X2X.25	TONGUE OF OCEAN	5600	4	BASE ALLOY		.0000	.0000	0
1254	5086-H34		1		.125 T	TONGUE OF OCEAN	4200	12	BASE ALLOY BASE EDGE	P -	.047 YES		.0001
1255	5086-H34		1		.125 T	TONGUE OF OCEAN	4200 SED	12	BASE ALLOY BASE EDGE	P -	.051 YES		.0001
1129	5086-H34	SHEET	1	PANEL	1X2X.25	TONGUE OF OCEAN	5600	34	BASE ALLOY		.0000	.0000	.0001
1281	5086-0	SHEET	1	PANEL	4X12X.08	HARBOR ISLAND NC	TW	12	BASE ALLOY	P	.0111	.0034	.0001
1284	5086-0	SHEET	1	PANEL	4X12X.08	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.0089	.0039	.0002

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA ***** RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
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1282	5086-0	SHEET	1	PANEL	4X12X.08	HARBOR ISLAND NC	TW	24	BASE ALLOY	P	.0089	.0039	.0001
1285	5086-0	SHEET	1	PANEL	4X12X.08	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0075	.0045	.0001
1283	5086-0	SHEET	1	PANEL	4X12X.08	HARBOR ISLAND NC	TW	60	BASE ALLOY	P	.0189	.0007	.0001
1286	5086-0	SHEET	1	PANEL	4X12X.08	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0022	.0019	.0001
1293	5086-0	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	12	BASE ALLOY	P		.0006	
	5356								HEAT AFFECTED ZONE	P	.0022		
									WELD BEAD	P	.0021	.0006	
									KNIFE LINE ATTACK		.0149		
1295	5086-0	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY	P		.0006	
	5356								HEAT AFFECTED ZONE	P	.0011	.0007	
									WELD BEAD	P		.0004	
									KNIFE LINE ATTACK		.0111		
1297	5086-0	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0009	.0004	
	5356								HEAT AFFECTED ZONE	P	.0009	.0004	
									WELD BEAD	P	.0028	.0008	
									KNIFE LINE ATTACK		.0140		
1299	5086-0	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0004	.0004	
	5356								HEAT AFFECTED ZONE	P	.0006	.0005	
									WELD BEAD	ID	.0023	.0010	
1300	5086-0	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0012	.0005	
	5356								HEAT AFFECTED ZONE	P	.0006	.0005	
									WELD BEAD	ID	.0006	.0001	
1060	5154-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY		NAA		
1061	5154-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY		NAA		
1062	5154-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.0030		
1057	5154-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY		NAA		
1058	5154-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.012		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION					GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
1059	5154-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.015		
1054	5154-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.012		
1055	5154-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0090		
1056	5154-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0050		
1069	5154-H34	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	6	BASE ALLOY	P	.0005	.0003	.0005
1070	5154-H34	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	6	BASE ALLOY	P	.0012	.0003	.0002
1067	5154-H34	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	24	BASE ALLOY	P	.0008	.0004	.0002
1068	5154-H34	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	24	BASE ALLOY	P	.0008	.0004	.0002
1063	5154-H34	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	65	BASE ALLOY	P	.0012	.0012	.0001
1064	5154-H34	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	65	BASE ALLOY	P	.0012	.0012	.0001
1065	5154-H34	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	65	BASE ALLOY	P	.0020	.0016	.0001
1066	5154-H34	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	65	BASE ALLOY	UP	.0054	.0031	.0001
1075	5154-H34	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY				
1076	5154-H34	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY				
1077	5154-H34	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
1078	5154-H34	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
1079	5154-H34	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0008	.0003	
1080	5154-H34	SHEET	1	PREFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
1081	5154-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0003		
1082	5154-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	12	BASE ALLOY		NAA		
1083	5154-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0023	.0008	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN		
1084	5154-H34	PLATE	1	PANEL	12X12X.39	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0005 .0002	
1085	5154-H34	PLATE	1	PANEL	12X12X.39	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0006 .0003	
1086	5154-H34	PLATE	1	PANEL	12X12X.39	MIAMI FLA	TOTAL	60	BASE ALLOY	UP+E	.0045 .0023	
1087	5154-H34	PLATE	1	PANEL	12X12X.39	MIAMI FLA	TOTAL	72	BASE ALLOY	BLIS	.0090	
1088	5154-H38	SHEET	1	PANEL	4X12X.05	HARBOR ISLAND NC	TW	12	BASE ALLOY	P	.0036 .0015	.0001
1091	5154-H38	SHEET	1	PANEL	4X12X.05	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.0152 .0035	.0002
1089	5154-H38	SHEET	1	PANEL	4X12X.05	HARBOR ISLAND NC	TW	24	BASE ALLOY	P	.0051 .0025	.0001
1092	5154-H38	SHEET	1	PANEL	4X12X.05	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0020 .0031	.0001
1090	5154-H38	SHEET	1	PANEL	4X12X.05	HARBOR ISLAND NC	TW	60	BASE ALLOY	P	.0189 .0018	.0001
1093	5154-H38	SHEET	1	PANEL	4X12X.05	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0102 .0003	.0001
1071	5154-O	SHEET	1	TW BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY			
1072	5154-O	SHEET	1	TW BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
1073	5154-O	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0020 .0003	
1074	5154-O	SHEET	1	PREFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
1052	5254-H34	SHEET	1	PANEL	3X9X.065	HUENEME CAL	5100	35	BASE ALLOY	P	PERF	.0001
1053	5254-H34	PLATE	1	C-RING	.75 DIA	HUENEME CAL	5100	35	BASE ALLOY			
1046	5254-H34	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TW	6	BASE ALLOY	P	.0004 .0004	
1047	5254-H34	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY		NAA	
1049	5254-H34	PLATE	1	C-RING	.75 DIA	MIAMI FLA	TW	6	BASE ALLOY			
1050	5254-H34	PLATE	1	C-RING	.75 DIA	MIAMI FLA	TOTAL	6	BASE ALLOY			
1048	5254-H34	SHEET	1	PANEL	3X9X.065	TONGUE OF OCEAN	5100	4	BASE ALLOY		NAA	

TABLE I

IDENT. NUMBER	ALLOT AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI, DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN		
1345	5454-H32 5052	SHEET	2		.16 T	HUENEME CAL	5640	4	BASE ALLOY WELD BEAD	P	.0070 .003	.0001
1346	5454-H32 5052	SHEET	2		.16 T	HUENEME CAL	5640 SED	4	BASE ALLOY BASE EDGE WELD BEAD	P -	.0490 .0456 YES SLGHT	.0011
1366	5454-H32 5052	SHEET	2		.16 T	HUENEME CAL	5640	4	BASE ALLOY WELD BEAD			
1352	5454-H32	SHEET	1		.16 T	HUENEME CAL	2340	6	BASE ALLOY BASE EDGE	P -	.0240 .0090 SLGHT	.0007
1353	5454-H32 5052	SHEET	2		.16 T	HUENEME CAL	2340	6	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	P P	.0410 .0280	.0003
1354	5454-H32	SHEET	1		.16 T	HUENEME CAL	2340 SED	6	BASE ALLOY BASE EDGE	P -	.0160 .0081 SLGHT	.0006
1355	5454-H32 5052	SHEET	2		.16 T	HUENEME CAL	2340 SED	6	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	P P	.0490 .0316	.0006
1364	5454-H32 5052	SHEET	2		.16 T	HUENEME CAL	2340	6	BASE ALLOY WELD BEAD			
1370	5454-H32	SHEET	1		.16 T	HUENEME CAL	2340	6	BASE ALLOY			
1371	5454-H32 5052	SHEET	2		.16 T	HUENEME CAL	2340	6	BASE ALLOY WELD BEAD			
1347	5454-H32	SHEET	1		.16 T	HUENEME CAL	6780	13	BASE ALLOY BASE EDGE	P -	.0380 .0280 MED	.0009
1348	5454-H32 5052	SHEET	2		.16 T	HUENEME CAL	6780	13	BASE ALLOY BASE EDGE HEAT AFFECTED ZONE WELD BEAD	P - -	.0641 .0465 YES LIGHT	.0017
1349	5454-H32	SHEET	1		.16 T	HUENEME CAL	6780 SED	13	BASE ALLOY BASE EDGE	P -	.0370 .0270 MOD	.0005

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
										MAX.	MEAN	
1350	5454-H32	SHEET	2		.16 T	HUENEME CAL	6780 SED 13	BASE ALLOY BASE EDGE HEAT AFFECTED ZONE WELD BEAD	P - -	.0420 YES LIGHT	.0320	.0006
	5052											
1356	5454-H32	SHEET	1		.16 T	HUENEME CAL	2370 13	BASE ALLOY	P	INCIP		.0003
1357	5454-H32	SHEET	2		.16 T	HUENEME CAL	2370 13	BASE ALLOY WELD BEAD	P P	.0420	.0345	.0006
	5052											
1358	5454-H32	SHEET	1		.16 T	HUENEME CAL	2370 SED 13	BASE ALLOY	P	INCIP		.0003
1359	5454-H32	SHEET	2		.16 T	HUENEME CAL	2370 SED 13	BASE ALLOY WELD BEAD	P	.0420	.0159	.0007
	5052											
1360	5454-H32	SHEET	2		.16 T	HUENEME CAL	5 13	BASE ALLOY WELD BEAD	P	.0080	.0061	.0005
	5052											
1361	5454-H32	SHEET	2		.16 T	HUENEME CAL	5 13	BASE ALLOY WELD BEAD	P	INCIP		.0003
	5052											
1362	5454-H32	SHEET	2		.16 T	HUENEME CAL	5 13	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	P P P	.039	.0267	.0007
	5052											
1363	5454-H32	SHEET	2		.16 T	HUENEME CAL	6780 13	BASE ALLOY WELD BEAD				
	5052											
1365	5454-H32	SHEET	2		.16 T	HUENEME CAL	2370 13	BASE ALLOY WELD BEAD				
	5052											
1367	5454-H32	SHEET	1		.16 T	HUENEME CAL	6780 13	BASE ALLOY				
1368	5454-H32	SHEET	2		.16 T	HUENEME CAL	6780 13	BASE ALLOY WELD BEAD				
	5052											
1372	5454-H32	SHEET	1		.16 T	HUENEME CAL	2370 13	BASE ALLOY				
1373	5454-H32	SHEET	1		.16 T	HUENEME CAL	2370 13	BASE ALLOY				

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
										MAX.	MEAN	
1351	5454-H32 5052	SHEET	2		.16 T	HUENEME CAL	5640 24	BASE ALLOY BASE EDGE WELD BEAD	P -	.0650 YES	.0502 SLIGHT	.0009
1369	5454-H32 5052	SHEET	2		.16 T	HUENEME CAL	5640 24	BASE ALLOY WELD BEAD				
1835	5454-H32 5454	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL 12	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P P	.0010 .0014 .0012 .0026	.0006 .0000	
1836	5454-H32 5554 8061-T6	PLATE	3	PANEL	4X9X.5	MIAMI FLA	TOTAL 12	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD OTHER ALLOY BASE HEAT AFFECTED ZONE	P P ID P P	.0099 .0051 .0072 .0065 .0015	.0012 .0015 .0016	
1838	5454-H32 5454	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL 24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P P	.0006 .0010 .0052 .0124	.0007 .0011	
1839	5454-H32 5554 8061-T6	PLATE	3	PANEL	4X9X.5	MIAMI FLA	TOTAL 24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK OTHER ALLOY BASE HEAT AFFECTED ZONE	P P ID P P	.0012 .0020 .0049 .0109 .0006 .0011	.0008 .0010 .0014	
1841	5454-H32 5454	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL 36	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P P	.0011 .0007 .0008 .010	.0005 .0006 .0005	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
										MAX	MEAN	
1842	5454-H32	PLATE	3	PANEL	4X9X.5	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0068	.0027
	5554								HEAT AFFECTED ZONE	P	.0014	.0005
	6061-T6								WELD BEAD	P	.0024	.0004
									KNIFE LINE ATTACK		NAA	
									OTHER ALLOY BASE	P	.0046	.0019
									HEAT AFFECTED ZONE	P+I	.0020	.0010
1844	5454-H32	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0005	.0004
	9454								HEAT AFFECTED ZONE	P	.0006	.0004
									WELD BEAD		NAA	
1845	5454-H32	PLATE	3	PANEL	4X9X.5	MIAMI FLA	TOTAL	48	BASE ALLOY	UP	.0035	.0021
	5554								HEAT AFFECTED ZONE	P	.0005	.0004
	6061-T6								WELD BEAD		NAA	
									OTHER ALLOY BASE			
1326	5454-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	6	BASE ALLOY	P		.0003
1327	5454-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	12	BASE ALLOY		NAA	
1328	5454-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0015	.0008
1329	5454-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0004	.0003
1330	5454-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	48	BASE ALLOY	UP	.0102	.0003
1331	5454-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.0135	.0023
1332	5454-H34	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.0220	
1042	5454-H34	PLATE	1	PANEL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.010	.010
1043	5454-H34	PLATE	1	PANEL	1X7X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.010	.010
1834	5454-D	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	12	BASE ALLOY		NAA	
	9454								HEAT AFFECTED ZONE	-	NAA	
									WELD BEAD		NAA	
									KNIFE LINE ATTACK		NAA	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD, CE	SC ED TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI, DATA RATE IN/YR	
					LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN			
1829	5454-O 5554	PLATE	2 PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P P	.0022 .0032 .0012 .0259	.0010 .0010 .0006	
1830	5454-O 4043	PLATE	2 PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P P	.0013 .0029 .0008 NAA	.0006 .0012 .0006	
1831	5454-O 5556 5052-O	PLATE	3 PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK OTHER ALLOY BASE HEAT AFFECTED ZONE	P P P P P	.0011 .0020 .0019 .0011 .0033	.0006 .0006 .0006 .0006 .0008	
1832	5454-O 5554 5052-O	PLATE	3 PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK OTHER ALLOY BASE HEAT AFFECTED ZONE	P P P P P	.0015 .0016 .0289 .0015 .0011	.0007 .0006 .0007 .0008 .0008	
1833	5454-O 4043 5052-O	PLATE	3 PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK OTHER ALLOY BASE HEAT AFFECTED ZONE	P P ID P P P	 .0041 NAA .0057 .0014	.0006 .0006 .0012 .0014 .0008	
1837	5454-O 5454	PLATE	2 PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P P	 .0009 .0010 .0050	.0004 .0007 .0008	
1840	5454-O 5454	PLATE	2 PANEL	4X9X.375	MIAMI FLA	TOTAL	36	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P P NAA	.0015 .0012 NAA .0095	.0008 .0007	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
1843	5454-0	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0010	.0004	
	5454								HEAT AFFECTED ZONE	P	.0011	.0006	
									WELD BEAD		NAA		
1824	5454-0	PLATE	2	PANEL	3X9X.375	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.0046	.0014	
	5554								HEAT AFFECTED ZONE	P	.0016	.0011	
									WELD BEAD	P	.0032	.0019	
									KNIFE LINE ATTACK		.0120		
1825	5454-0	PLATE	2	PANEL	3X9X.375	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.0063	.0012	
	4043								HEAT AFFECTED ZONE	P	.0012	.0007	
									WELD BEAD	ID	.0045	.0014	
									KNIFE LINE ATTACK		NAA		
1826	5454-0	PLATE	3	PANEL	3X9X.375	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.0047	.0009	
	5556								HEAT AFFECTED ZONE	"	NAA		
	5052-0								WELD BEAD	P	.0031	.0013	
									KNIFE LINE ATTACK		.0130		
									OTHER ALLOY BASE	P	.0013	.0008	
									HEAT AFFECTED ZONE	P	.0010	.0007	
1827	5454-0	PLATE	3	PANEL	3X9X.375	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.0025	.0005	
	5554								HEAT AFFECTED ZONE	P	.0011	.0006	
	5052-0								WELD BEAD	P	.0036	.0016	
									KNIFE LINE ATTACK		NAA		
									OTHER ALLOY BASE	P	.0155	.0010	
									HEAT AFFECTED ZONE	P	.0090		
1828	5454-0	PLATE	3	PANEL	3X9X.375	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.0187	.0009	
	4043								HEAT AFFECTED ZONE	P	.0005	.0002	
	5052-0								WELD BEAD	ID	.0013	.0008	
									KNIFE LINE ATTACK		NAA		
									OTHER ALLOY BASE	P	.0086	.0008	
									HEAT AFFECTED ZONE	"	NAA		
956	5456-H112	PIPE	1	PIPE	2 DIA X 1	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0020	.0014	
959	5456-H112	PIPE	1	C-RING	2 DIA X 1	MIAMI FLA	TOTAL	18	BASE ALLOY				
960	5456-H112	PIPE	1	C-RING	2 DIA X 1	MIAMI FLA	TOTAL	18	BASE ALLOY				

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT MOB	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN		
957	5456-H112	PIPE	1	PIPE	2 DIA X 1	MIAMI FLA	TOTAL	24	BASE ALLOY	P	,0006 ,0005	
961	5456-H112	PIPE	1	C-RING	2 DIA X 1	MIAMI FLA	TOTAL	24	BASE ALLOY			
962	5456-H112	PIPE	1	C-RING	2 DIA X 1	MIAMI FLA	TOTAL	24	BASE ALLOY			
958	5456-H112	PIPE	1	PIPE	2 DIA X 1	MIAMI FLA	TOTAL	48	BASE ALLOY	P	,0103 ,0024	
963	5456-H112	PIPE	1	C-RING	2 DIA X 1	MIAMI FLA	TOTAL	48	BASE ALLOY			
964	5456-H112	PIPE	1	C-RING	2 DIA X 1	MIAMI FLA	TOTAL	48	BASE ALLOY			
965	5456-H116	PLATE	1	PANEL	3X12X,25	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY			,0008
974	5456-H116	PLATE	1	PANEL	3X12X,5	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY			,0007
977	5456-H116	PLATE	1	PANEL	3X12X,5	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY			,0019
966	5456-H116	PLATE	1	PANEL	3X12X,25	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY			,0005
975	5456-H116	PLATE	1	PANEL	3X12X,5	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY			,0005
978	5456-H116	PLATE	1	PANEL	3X12X,5	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY			,0010
967	5456-H116	PLATE	1	PANEL	3X12X,25	WRIGHTSVILLE BEACH NC	TOTAL	24	BASE ALLOY	UNI		,0004
976	5456-H116	PLATE	1	PANEL	3X12X,5	WRIGHTSVILLE BEACH NC	TOTAL	24	BASE ALLOY BASE EDGE	P LUCL MOD	INCIP	,0005
979	5456-H116	PLATE	1	PANEL	3X12X,5	WRIGHTSVILLE BEACH NC	TOTAL	24	BASE ALLOY	P	INCIP	,0012
968	5456-H117	PLATE	1	PANEL	3X8X,25	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY			,0007
971	5456-H117	PLATE	1	PANEL	3X8X,25	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY			,0007
980	5456-H117	PLATE	1	PANEL	3X12X,5	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY			,0006
982	5456-H117	PLATE	1	PANEL	3X12X,5	WRIGHTSVILLE BEACH NC	TOTAL	6	BASE ALLOY			,0008
969	5456-H117	PLATE	1	PANEL	3X8X,25	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY			,0005

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IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION			GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT MGS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX. MEAN	
972	5456-H117	PLATE	1	PANFL	3X8X.25	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY		.0006
981	5456-H117	PLATE	1	PANFL	3X12X.5	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY	UNI	.0005
993	5456-H117	PLATE	1	PANFL	3X12X.5	WRIGHTSVILLE BEACH NC	TOTAL	12	BASE ALLOY	UNI	.0009
970	5456-H117	PLATE	1	PANFL	3X8X.25	WRIGHTSVILLE BEACH NC	TOTAL	24	BASE ALLOY	UNI	.0003
973	5456-H117	PLATE	1	PANFL	3X8X.25	WRIGHTSVILLE BEACH NC	TOTAL	24	BASE ALLOY	UNI	.0005
1421	5456-H14	SHEET	1	PANFL	3X9X.065	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0017 .0006
1423	5456-H14	SHEET	1	PANFL	3X9X.065	MIAMI FLA	TW	12	BASE ALLOY	NAA	
930	5456-H24	SHEET	1	PANFL	4X9X.064	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0040 .0019
933	5456-H24	SHEET	1	PANFL	4X9X.064	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0290 .0038
934	5456-H24	SHEET	1	PANFL	4X9X.064	MIAMI FLA	TW	12	BASE ALLOY	P	.0007 .0007
931	5456-H24	SHEET	1	PANFL	4X9X.064	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0101 .0016
935	5456-H24	SHEET	1	PANFL	4X9X.064	MIAMI FLA	TW	36	BASE ALLOY	P	.0018 .0003
932	5456-H24	SHEET	1	PANFL	4X9X.064	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0082
936	5456-H24	SHEET	1	PANFL	4X9X.064	MIAMI FLA	TW	60	BASE ALLOY	P	.0027
937	5456-H24	SHEET	1	PANFL	4X9X.064	MIAMI FLA	TW	72	BASE ALLOY	P	.0112 .0029
994	5456-H311	ANGLE	1	ANGLE	2X2X12	MIAMI FLA	TW	48	BASE ALLOY	I+P	.0037 .0021
955	5456-H311	ANGLE	1	ANGLE	2X2X12	MIAMI FLA	TOTAL	48	BASE ALLOY	I	.0048 .0014
1009	5456-H32		1			HUENEME CAL	2370	13	BASE ALLOY		.0000 .0006
1010	5456-H32		1			HUENEME CAL	2370 SED	13	BASE ALLOY		.0000 .0007
1040	5456-H32		1			HUENEME CAL	2370	18	BASE ALLOY		
1041	5456-H32		1			HUENEME CAL	2370	18	BASE ALLOY		

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IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MO6	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
1003	5456-H321	PLATE	1	PANEL	4X12X,25	HARBOR ISLAND NC	TW	12	BASE ALLOY	P	.0152	.0039	.0001
1006	5456-H321	PLATE	1	PANEL	4X12X,25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.0286	.0062	.0002
1004	5456-H321	PLATE	1	PANEL	4X12X,25	HARBOR ISLAND NC	TW	24	BASE ALLOY	P	.0152	.0054	.0001
1007	5456-H321	PLATE	1	PANEL	4X12X,25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0453	.0093	.0001
1005	5456-H321	PLATE	1	PANEL	4X12X,25	HARBOR ISLAND NC	TW	60	BASE ALLOY	P	.0130	.0117	.0001
1008	5456-H321	PLATE	1	PANEL	4X12X,25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0380	.0082	.0001
984	5456-H321	SHEET	1		.125 T	HUENEME CAL	5640	4	BASE ALLOY				
1011	5456-H321	SHEET	1		.125 T	HUENEME CAL	5640	4	BASE ALLOY	ETCH			.0025
1012	5456-H321	SHEET	1		.125 T	HUENEME CAL	5640 SED	4	BASE ALLOY	P	.0491	.040	.0021
988	5456-H321	SHEET	1		.125 T	HUENEME CAL	2340	6	BASE ALLOY				
990	5456-H321	SHEET	1		.125 T	HUENEME CAL	5	6	BASE ALLOY				
1019	5456-H321	SHEET	1		.125 T	HUENEME CAL	2340	6	BASE ALLOY	P	.0170	.0147	.0027
1020	5456-H321	SHEET	1		.125 T	HUENEME CAL	2340 SED	6	BASE ALLOY	P	.0430	.0189	.0026
1023	5456-H321	SHEET	1		.125 T	HUENEME CAL	5	6	BASE ALLOY	P	.0120	.0058	.0012
985	5456-H321	SHEET	1		.125 T	HUENEME CAL	6780	13	BASE ALLOY				
989	5456-H321	SHEET	1		.125 T	HUENEME CAL	2370	13	BASE ALLOY				
1013	5456-H321	SHEET	1		.125 T	HUENEME CAL	6780	13	BASE ALLOY	P	INCIP		.0010
1014	5456-H321	SHEET	1		.125 T	HUENEME CAL	6780 SED	13	BASE ALLOY	P	.0440	.0277	.0008
1021	5456-H321	SHEET	1		.125 T	HUENEME CAL	2370	13	BASE ALLOY	P	.0410	.0207	.0011
1022	5456-H321	SHEET	1		.125 T	HUENEME CAL	2370 SED	13	BASE ALLOY	P	.0140	.0082	.0012
1024	5456-H321	SHEET	1		.125 T	HUENEME CAL	5	13	BASE ALLOY	P	.0160	.0105	.0006

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOB	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
1025	5456-H321	SHEET	1		.125 T	HUENEME CAL	5	18	BASE ALLOY	P	.0140	.0115	.0009
986	5456-H321	SHEET	1		.125 T	HUENEME CAL	5640	24	BASE ALLOY				
1015	5456-H321	SHEET	1		.125 T	HUENEME CAL	5640	24	BASE ALLOY	P	.0530	.0349	.0020
1016	5456-H321	SHEET	1		.125 T	HUENEME CAL	5640 SED	24	BASE ALLOY	P	.0500	.0313	.0022
1419	5456-H321	PLATE	1	C-RING	.75 DIA	HUENEME CAL	5100	35	BASE ALLOY				
987	5456-H321	SHEET	1		.125 T	HUENEME CAL	5300	36	BASE ALLOY				
1017	5456-H321	SHEET	1		.125 T	HUENEME CAL	5300	36	BASE ALLOY	P	.0430	.0365	.0013
1018	5456-H321	SHEET	1		.125 T	HUENEME CAL	5300 SED	36	BASE ALLOY	P	.0360	.0330	.0015
923	5456-H321	PLATE	1	PANEL	12X12X2	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0026	.0010	
1377	5456-H321	PLATE	1	C-RING	.75 DIA	MIAMI FLA	TW	6	BASE ALLOY				
1378	5456-H321	PLATE	1	C-RING	.75 DIA	MIAMI FLA	TOTAL	6	BASE ALLOY				
1380	5456-H321	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0049	.0010	
1387	5456-H321	PLATE	1	PANEL	12X12X.5	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0167	.0007	
1394	5456-H321	PLATE	1	PANEL	12X12X.75	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0020	.0008	
1401	5456-H321	PLATE	1	PANEL	12X12X1	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0013	.0006	
924	5456-H321	PLATE	1	PANEL	12X12X2	MIAMI FLA	TOTAL	12	BASE ALLOY	I	.0013	.0010	
1381	5456-H321	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0004	.0004	
1388	5456-H321	PLATE	1	PANEL	12X12X.5	MIAMI FLA	TOTAL	12	BASE ALLOY		NAA		
1395	5456-H321	PLATE	1	PANEL	12X12X.75	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0016	.0010	
1402	5456-H321	PLATE	1	PANEL	12X12X1	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0012	.0010	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR	
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX	MEAN		
1407	5456-H321	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0017	.0006	
	5456								HEAT AFFECTED ZONE	P	.0006		
									WELD BEAD	P	.0014	.0008	
									KNIFE LINE ATTACK		.0136		
1408	5456-H321	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0015	.0006	
	5556								HEAT AFFECTED ZONE	P	.0006		
									WELD BEAD	P	.0068	.0012	
									KNIFE LINE ATTACK		.0273		
925	5456-H321	PLATE	1	PANEL	12X12X2	MIAMI FLA	TOTAL	24	BASE ALLOY	P+SI	.0137	.0046	
1382	5456-H321	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	24	BASE ALLOY	I	.0142	.0010	
1389	5456-H321	PLATE	1	PANEL	12X12X.5	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0050	.0014	
1396	5456-H321	PLATE	1	PANEL	12X12X.75	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0052	.0015	
1403	5456-H321	PLATE	1	PANEL	12X12X1	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0117	.0018	
1410	5456-H321	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0008	.0006	
	5456								HEAT AFFECTED ZONE	P	.0007	.0007	
									WELD BEAD	P	.0013	.0007	
									KNIFE LINE ATTACK		.0109		
1411	5456-H321	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY	P		.0006	
	5556								HEAT AFFECTED ZONE	I+P	.0013	.0008	
									WELD BEAD	P	.0027	.0008	
									KNIFE LINE ATTACK		.0246		
926	5456-H321	PLATE	1	PANEL	12X12X2	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0023	.0012	
1383	5456-H321	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0006	.0002	
1390	5456-H321	PLATE	1	PANEL	12X12X.5	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0008	.0004	
1397	5456-H321	PLATE	1	PANEL	12X12X.75	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0016	.0007	
1404	5456-H321	PLATE	1	PANEL	12X12X1	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0013	.0007	

TABLE 1

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI, DATA RATE IN/YR	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
1413	5456-H321	PLATE	2	PANFL	4X9X.375	MIAMI FLA	TOTAL	36	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P - NAA NAA	.0010 NAA NAA .0062	.0004	
1414	5456-H321	PLATE	2	PANFL	4X9X.375	MIAMI FLA	TOTAL	36	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P+SI P ID	.0030 .0020 .0063 .0100	.0004 .0004 .0036	
927	5456-H321	PLATE	1	PANFL	12X12X2	MIAMI FLA	TOTAL	48	BASE ALLOY	UP	.0140	.0016	
1384	5456-H321	PLATE	1	PANFL	12X12X.38	MIAMI FLA	TOTAL	48	BASE ALLOY	UP	.0193	.0002	
1391	5456-H321	PLATE	1	PANFL	12X12X.5	MIAMI FLA	TOTAL	48	BASE ALLOY	UP	.0081	.0003	
1398	5456-H321	PLATE	1	PANFL	12X12X.75	MIAMI FLA	TOTAL	48	BASE ALLOY	UP	.0105	.0002	
1405	5456-H321	PLATE	1	PANFL	12X12X1	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0060	.0015	
1416	5456-H321	PLATE	2	PANFL	4X9X.375	MIAMI FLA	TOTAL	48	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	P - NAA NAA	.0005 NAA NAA	.0003	
1417	5456-H321	PLATE	2	PANFL	4X9X.375	MIAMI FLA	TOTAL	48	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	P P ID	.0009 .0005 .0007	.0004 .0004 .0006	
921	5456-H321	PLATE	1	PANFL	12X12X1	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.0079	.0032	
928	5456-H321	PLATE	1	PANFL	12X12X2	MIAMI FLA	TOTAL	60	BASE ALLOY	P+SI	.0112	.0042	
1385	5456-H321	PLATE	1	PANFL	12X12X.38	MIAMI FLA	TOTAL	60	BASE ALLOY	P+SI	.0236	.0069	
1392	5456-H321	PLATE	1	PANFL	12X12X.5	MIAMI FLA	TOTAL	60	BASE ALLOY	UP	.0072	.0041	
1399	5456-H321	PLATE	1	PANFL	12X12X.75	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.0225	.0052	
922	5456-H321	PLATE	1	PANFL	12X12X1	MIAMI FLA	TOTAL	72	BASE ALLOY				
929	5456-H321	PLATE	1	PANFL	12X12X2	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.026		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GMAV, DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN		
1386	5456-H321	PLATE	1	PANEL	12X12X.38	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.0420	
1393	5456-H321	PLATE	1	PANEL	12X12X.5	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.0380	
1400	5456-H321	PLATE	1	PANEL	12X12X.75	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.0260	
1379	5456-H321	PLATE	1	C-RING	.75 DIA	TONGUE OF OCEAN	5100	4	BASE ALLOY			
938	5456-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0018 .0008	
944	5456-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	12	BASE ALLOY		NAA	
939	5456-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0009 .0008	
945	5456-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	24	BASE ALLOY	P	.0002 .0002	
940	5456-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0027 .0012	
946	5456-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	48	BASE ALLOY		NAA	
947	5456-H323	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	60	BASE ALLOY	P	.0079 .0002	
991	5456-H34	SHEET	1		.05 T	HUENEME CAL	5640	4	BASE ALLOY			
1026	5456-H34	SHEET	1		.05 T	HUENEME CAL	5640	4	BASE ALLOY	P	.0310	
995	5456-H34	SHEET	1		.05 T	HUENEME CAL	2340	6	BASE ALLOY			
1032	5456-H34	SHEET	1		.05 T	HUENEME CAL	2340	6	BASE ALLOY	P	.012	.0001
992	5456-H34	SHEET	1		.05 T	HUENEME CAL	6780	13	BASE ALLOY			
996	5456-H34	SHEET	1		.05 T	HUENEME CAL	6780	13	BASE ALLOY			
1027	5456-H34	SHEET	1		.05 T	HUENEME CAL	6780	13	BASE ALLOY	P	PERF	
1028	5456-H34	SHEET	1		.05 T	HUENEME CAL	6780 SED	13	BASE ALLOY	EXF		
993	5456-H34	SHEET	1		.05 T	HUENEME CAL	5640	24	BASE ALLOY			
1029	5456-H34	SHEET	1		.05 T	HUENEME CAL	5640	24	BASE ALLOY	P	PERF	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX	MEAN		
1375	5456-H343	SHEET	2	PANEL	3X9X.090	MIAMI FLA	TOTAL	6	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	P	.0084 .0009 NAA	.0084 .0009	
	5556												
941	5456-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0012	.0007	
948	5456-H343	SHEET	1	PANFL	6X9X.090	MIAMI FLA	TW	12	BASE ALLOY	P		.0003	
1424	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TW	12	BASE ALLOY	I	.0051	.0011	
1432	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	12	BASE ALLOY	I	.0008	.0005	
942	5456-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0008	.0006	
949	5456-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	24	BASE ALLOY		NAA		
1425	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TW	24	BASE ALLOY	I+P	.0086	.0052	
1433	5456-H343	SHEET	1	PANFL	4X9X.125	MIAMI FLA	TOTAL	24	BASE ALLOY	I	.0075	.0071	
1426	5456-H343	SHEET	1	PANFL	4X9X.125	MIAMI FLA	TW	36	BASE ALLOY	I	.0032	.0008	
1434	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	36	BASE ALLOY	I	.0021	.0007	
943	5456-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0010	.0006	
950	5456-H343	SHEET	1	PANFL	6X9X.090	MIAMI FLA	TW	48	BASE ALLOY		NAA		
1427	5456-H343	SHEET	1	PANFL	4X9X.125	MIAMI FLA	TW	48	BASE ALLOY	I	.0024	.0008	
1435	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	48	BASE ALLOY	I	.0040	.0015	
951	5456-H343	SHEET	1	PANEL	6X9X.090	MIAMI FLA	TW	60	BASE ALLOY	P	.0058	.0033	
1428	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TW	60	BASE ALLOY	I	.0030	.0008	
1436	5456-H343	SHEET	1	PANFL	4X9X.125	MIAMI FLA	TOTAL	60	BASE ALLOY	I+P	.0158	.0011	
1429	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TW	72	BASE ALLOY	I	.0112	.0036	
1437	5456-H343	SHEET	1	PANFL	4X9X.125	MIAMI FLA	TOTAL	72	BASE ALLOY	I	.0079	.0029	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVIM. DATA RATE IN/YR	
						LOCATION	DEPTH-FT MOE	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
952	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	84	BASE ALLOY	P+I	.0024	.0011	
1430	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	Tw	84	BASE ALLOY	I	.0081	.0041	
953	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	96	BASE ALLOY	P+SI	.0066	.0039	
1431	5456-H343	SHEET	1	PANEL	4X9X.125	MIAMI FLA	Tw	96	BASE ALLOY	P	.0028	.0028	
1376	5456-H343	SHEET	2	PANEL	3X9X.090	TONGUE OF OCEAN	5100	4	BASE ALLOY	P	.0196	.0151	
	5556								HEAT AFFECTED ZONE	P	.0208	.0098	
									WELD BEAD	P	.0014	.0014	
1406	5456-H	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0013	.0006	
	5456								HEAT AFFECTED ZONE	P	.0010		
									WELD BEAD	P	.0014	.0008	
									KNIFE LINE ATTACK		.0064		
1420	5456-H	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	12	BASE ALLOY	P	.0029	.0004	
1422	5456-H	SHEET	1	PANEL	3X9X.065	MIAMI FLA	Tw	12	BASE ALLOY		NAA		
1409	5456-H	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	24	BASE ALLOY	P		.0006	
	5456								HEAT AFFECTED ZONE	P	.0019	.0007	
									WELD BEAD	P	.0010	.0007	
									KNIFE LINE ATTACK		.0050		
1412	5456-H	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0010	.0005	
	5456								HEAT AFFECTED ZONE	P	.0010	.0006	
									WELD BEAD		NAA		
									KNIFE LINE ATTACK		.0110		
1415	5456-H	PLATE	2	PANEL	4X9X.375	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0005	.0003	
	5456								HEAT AFFECTED ZONE	-	NAA		
									WELD BEAD	10	.0017	.0009	
915	5457-H34	SHEET	1	PANEL	4X12X.04	HARBOR ISLAND NC	Tw	12	BASE ALLOY	P	.0089	.0036	.0002
918	5457-H34	SHEET	1	PANEL	4X12X.04	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.0120	.0072	.0002
916	5457-H34	SHEET	1	PANEL	4X12X.04	HARBOR ISLAND NC	Tw	24	BASE ALLOY	P	.0114	.0036	.0001

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOB	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
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919	5457-H34	SHEET	1	PANFL	4X12X.04	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0117	.0062	.0001
917	5457-H34	SHEET	1	PANFL	4X12X.04	HARBOR ISLAND NC	TW	60	BASE ALLOY	P	.0046	.0001	.0001
920	5457-H34	SHEET	1	PANFL	4X12X.04	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0037	.0002	.0001
821	6051-T4	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.010		
825	6051-T4	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.025		
845	6051-T4	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.035		
849	6051-T4	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.066		
822	6051-T4	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.065		
826	6051-T4	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.047		
846	6051-T4	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.023		
850	6051-T4	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.065		
823	6051-T4	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.051		
827	6051-T4	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.109		
847	6051-T4	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.065		
851	6051-T4	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.090		
824	6051-T4	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.037		
828	6051-T4	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.170		
848	6051-T4	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.072		
852	6051-T4	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.115		
837	6051-T4	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.027		
841	6051-T4	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.034		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PR ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
										MAX.	MEAN	
907	6051-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY		NAA	
911	6051-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.0030	
938	6051-T4	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.027	
942	6051-T4	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.065	
908	6051-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.010	
912	6051-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY		NAA	
939	6051-T4	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.014	
943	6051-T4	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.030	
909	6051-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY		NAA	
913	6051-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.0090	
940	6051-T4	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.032	
944	6051-T4	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.074	
910	6051-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.062	
914	6051-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.035	
929	6051-T4	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY		NAA	
933	6051-T4	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.057	
999	6051-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY		NAA	
903	6051-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.016	
930	6051-T4	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY		NAA	
934	6051-T4	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0050	
900	6051-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY		NAA	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GNAVI, DATA RATE IN/YR
						LOCATION	DEPTH-FT	HOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
904	6051-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0040		
831	6051-T4	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.027		
835	6051-T4	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.020		
901	6051-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0050		
905	6051-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0070		
832	6051-T4	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.020		
836	6051-T4	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.015		
902	6051-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY		NAA		
906	6051-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.015		
889	6051-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY				
885	6051-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
886	6051-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
890	6051-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
891	6051-T4	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P+SI	.0072	.0014	
892	6051-T4	SHEET	1	PREFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
813	6051-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.070		
917	6051-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.064		
869	6051-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.070		
873	6051-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.055		
814	6051-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	PERF		
818	6051-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.065		

TABLE 1

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
R70	6051-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.060		
R74	6051-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.034		
R15	6051-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.160		
R19	6051-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.107		
R71	6051-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.181		
R75	6051-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.184		
R16	6051-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	PERF		
R20	6051-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.200		
R72	6051-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.238		
R76	6051-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.200		
R06	6051-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.052		
R10	6051-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.100		
R61	6051-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.019		
R65	6051-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.0050		
R07	6051-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.068		
R62	6051-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.056		
R66	6051-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.0080		
R08	6051-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.125		
R11	6051-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.084		
R63	6051-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.015		
R67	6051-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.025		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CR	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION			GRAVI. DATA ***** DATE IN/YR *****
						LOCATION	DEPTH-FT	MOB	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN	
809	6051-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	120	BASE ALLOY	P	PERF	
812	6051-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	120	BASE ALLOY	P	PERF	
864	6051-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.064	
868	6051-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.060	
853	6051-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.0020	
857	6051-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.011	
877	6051-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.070	
891	6051-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.058	
854	6051-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY		NAA	
858	6051-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.017	
878	6051-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.040	
882	6051-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.100	
855	6051-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0050	
859	6051-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0090	
879	6051-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.046	
883	6051-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.034	
856	6051-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY		NAA	
860	6051-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.015	
890	6051-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.067	
884	6051-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.045	
893	6051-T6	SHEET	1	TEN BLANK	.064 T	MIAMI FLA	TOTAL	3	BASE ALLOY			

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO FD CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION			GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN	
894	6051-T6	SHEET	1	TEN BLANK	.064 T	MIAMI FLA	TOTAL	3	BASE ALLOY		
887	6051-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY		
888	6051-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY		
895	6051-T6	SHEET	1	TEN BLANK	.064 T	MIAMI FLA	TOTAL	6	BASE ALLOY		
896	6051-T6	SHEET	1	TEN BLANK	.064 T	MIAMI FLA	TOTAL	6	BASE ALLOY		
897	6051-T6	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P+SI .0260 .0032	
898	6051-T6	SHEET	1	PREFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY		
1453	6053-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY		
1454	6053-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY		
1455	6053-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY		
1459	6053-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY		
1460	6053-T4	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P+SI .0014 .0007	
1461	6053-T4	SHEET	1	PREFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY		
1440	6053-T6		1	PANEL		BLK ROCK HARBOR CONN	TOTAL	12	BASE ALLOY		
1441	6053-T6		1	PANEL		BLK ROCK HARBOR CONN	A.I.	12	BASE ALLOY		
1442	6053-T6		1	PANEL		EAST RIVER HARBOR NY	TOTAL	24	BASE ALLOY		
1443	6053-T6		1	PANEL		EAST RIVER HARBOR NY	A.I.	24	BASE ALLOY		
767	6053-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P .080	
771	6053-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P .178	
782	6053-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P .093	
792	6053-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P .081	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR
						LOCATION	DEPTH-FT	MOB	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
768	6053-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.110		
772	6053-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	PERF		
789	6053-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.126		
793	6053-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.118		
769	6053-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.175		
773	6053-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	PERF		
790	6053-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.105		
794	6053-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.118		
770	6053-T6	ANGLE	1	ANGLE	2X2X36	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.210		
791	6053-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.105		
764	6053-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.185		
781	6053-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.028		
785	6053-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.093		
802	6053-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	12	BASE ALLOY		NAA		
765	6053-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.090		
782	6053-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.034		
786	6053-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.091		
803	6053-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	24	BASE ALLOY		NAA		
766	6053-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	60	BASE ALLOY	P	PERF		
783	6053-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.066		
787	6053-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.034		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
804	6053-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.0070		
784	6053-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.095		
805	6053-T6	ANGLE	1	ANGLE	2X2X36	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.034		
774	6053-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.028		
777	6053-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.040		
795	6053-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.013		
799	6053-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.028		
775	6053-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.150		
778	6053-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.013		
796	6053-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.025		
800	6053-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.0010		
776	6053-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.186		
779	6053-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.014		
797	6053-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.093		
801	6053-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.020		
780	6053-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.058		
798	6053-T6	ANGLE	1	ANGLE	2X2X36	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.046		
1450	6053-T6		1	PANEL		HUDSON R EDGEWATER NJ	TOTAL	12	BASE ALLOY				
1451	6053-T6		1	PANEL		HUDSON R EDGEWATER NJ A.I.		12	BASE ALLOY				

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR	
						LOCATION	DEPTH-FT MOB	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
1453	6053-T6 4043	PLATE	2	PANEL	.25 T	KURE BEACH NC	TOTAL	24	BASE ALLOY WELD BEAD		.0050 .0042	.0012 .0021	
1452	6053-T6	PLATE	1	RIVETED	.25 T	KURE BEACH NC	TOTAL	72	BASE ALLOY		.0014	.0005	
1462	6053-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY				
1463	6053-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY				
1456	6053-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
1457	6053-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
1464	6053-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
1465	6053-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
1466	6053-T6	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P+51	.0043	.0007	
1467	6053-T6	SHEET	1	PREFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
1446	6053-T6			1 PANEL		MOBILE ALA	TOTAL	24	BASE ALLOY				
1447	6053-T6			1 PANEL		MOBILE ALA	A.I.	24	BASE ALLOY				
1438	6053-T6			1 PANEL		MONTREAL QUE	TOTAL	12	BASE ALLOY				
1439	6053-T6			1 PANEL		MONTREAL QUE	A.I.	12	BASE ALLOY				
1448	6053-T6			1 PANEL		NEW ORLEANS LA	TOTAL	24	BASE ALLOY				
1449	6053-T6			1 PANEL		NEW ORLEANS LA	A.I.	24	BASE ALLOY				
1444	6053-T6			1 PANEL		NORFOLK VA	TOTAL	12	BASE ALLOY				
1445	6053-T6			1 PANEL		NORFOLK VA	A.I.	24	BASE ALLOY				
1470	6061-	SHEET	1		.032 T	HUENEME CAL	5	6	BASE ALLOY	P	.0050		.0012
1471	6061-	SHEET	1		.032 T	HUENEME CAL	5	12	BASE ALLOY	P	.011		.0009

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI, DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
1468	6061-	SHEET	1		.032 T	HUENEME CAL	2370	13	BASE ALLOY		NAA		.0012
1469	6061-	SHEET	1		.032 T	HUENEME CAL	2370	SEP 13	BASE ALLOY		NAA		.0007
1540	6061-T	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	13	12	BASE ALLOY	P		.0050	.0003
1541	6061-T	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	MEANTIDE	12	BASE ALLOY	P		.0050	.0001
1542	6061-T	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	13	96	BASE ALLOY	P		.0230	.0007
1543	6061-T	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	MEANTIDE	96	BASE ALLOY	P		.0050	.0001
1544	6061-T	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	13	192	BASE ALLOY	P	.079	.0140	.0009
1545	6061-T	PLATE	1	PANEL	9X9X.25	NAOS ISLAND PACIFIC	MEANTIDE	192	BASE ALLOY	P	.041	.0170	.0003
637	6061-T4	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	12	BASE ALLOY	P		.0050	
638	6061-T4	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	36	BASE ALLOY	P		.0060	
639	6061-T4	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	60	BASE ALLOY	P		.033	
640	6061-T4	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	120	BASE ALLOY	P		.039	
633	6061-T4	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P		.033	
665	6061-T4	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P		.015	
634	6061-T4	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P		.045	
666	6061-T4	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P		.050	
635	6061-T4	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P		.056	
667	6061-T4	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P		.020	
636	6061-T4	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P		.070	
668	6061-T4	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P		.028	
629	6061-T4	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL	12	BASE ALLOY	P		.025	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR -----
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
										MAX.	MEAN	
661	6061-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.012	
630	6061-T4	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.020	
662	6061-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.018	
631	6061-T4	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.012	
663	6061-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.021	
632	6061-T4	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.032	
664	6061-T4	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.033	
657	6061-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY		NAA	
669	6061-T4	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.023	
658	6061-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.013	
670	6061-T4	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.023	
659	6061-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0020	
671	6061-T4	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.027	
660	6061-T4	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.014	
672	6061-T4	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.012	
1528	6061-T4	PLATE	1	PANEL	.25 T	KURE BEACH NC	TOTAL	36	BASE ALLOY		.0021	.0009
1818	6061-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY			
760	6061-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
761	6061-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
1819	6061-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
1820	6061-T4	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0043	.0007

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION					GRAVI. DATA ----- RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1821	6061-T4	SHEET	1	PERFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
1523	6061-T6		1	PANEL		BLK ROCK HARBOR CONN	TOTAL	12	BASE ALLOY				
1524	6061-T6		1	PANEL		BLK ROCK HARBOR CONN	A.I.	12	BASE ALLOY				
653	6061-T6	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	12	BASE ALLOY	P	.032		
654	6061-T6	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	36	BASE ALLOY	P	.038		
655	6061-T6	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	60	BASE ALLOY	P	.065		
656	6061-T6	PLATE	1	PANEL	8X8X.25	BRIXHAM ENGLAND	TOTAL	120	BASE ALLOY	P	.051		
1521	6061-T6	SHEET	1	PANEL	4X9X.065	CORPUS CHRISTI TEX	FLUME	22	BASE ALLOY		.0154	.0044	.0011
649	6061-T6	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.020		
693	6061-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.030		
697	6061-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.060		
701	6061-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	12	BASE ALLOY	P	.035		
690	6061-T6	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.030		
694	6061-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.025		
698	6061-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.100		
702	6061-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.048		
651	6061-T6	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.046		
695	6061-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.080		
699	6061-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.125		
703	6061-T6	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.060		
652	6061-T6	ANGLE	1	ANGLE	2X.25X36	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.045		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
										MAX.	MEAN	
696	6061-T6	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.116	
700	6061-T6	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.125	
704	6061-T6	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	120	BASE ALLOY	P	.055	
1522	6061-T6	SHEET	1	PANEL	4X9X.065	FREEPORT TEX	FLUME	7	BASE ALLOY			.0001
645	6061-T6	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.015	
681	6061-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.036	
685	6061-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.050	
689	6061-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.038	
646	6061-T6	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.0090	
682	6061-T6	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.043	
686	6061-T6	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.067	
690	6061-T6	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.047	
647	6061-T6	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.014	
683	6061-T6	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.043	
687	6061-T6	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.090	
691	6061-T6	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.058	
648	6061-T6	ANGLE	1	ANGLE	2X.25X36	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.027	
684	6061-T6	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.053	
688	6061-T6	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.122	
692	6061-T6	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	120	BASE ALLOY	P	.067	
641	6061-T6	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.013	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED OF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR -----	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
673	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.067		
677	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.015		
732	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.036		
642	6061-T6	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.013		
674	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.100		
678	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.027		
733	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.044		
643	6061-T6	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.010		
675	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.144		
679	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.036		
734	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.060		
644	6061-T6	ANGLE	1	ANGLE	2X.25X36	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.015		
676	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.130		
680	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.040		
735	6061-T6	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	120	BASE ALLOY	P	.095		
1472	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640	4	BASE ALLOY	P	INCIP		.0001
1473	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640	4	BASE ALLOY	P	.0050	.0018	
1474	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640 SED	4	BASE ALLOY	P	.032	.022	.0009
1475	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640 SED	4	BASE ALLOY	P	.031	.0256	.0016

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI, DATA DATE IN/YR	
						LOCATION	DEPTH-FT MOB	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX	MEAN		
1476	6061-T6 #061	SHEET	2		.125 T	HUENEME CAL	5640	4	BASE ALLOY WELD BEAD	P+I	.013		
1477	6061-T6 #061	SHEET	2		.125 T	HUENEME CAL	5640	4	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	P	SHAL .030 .030		
1478	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640	4	BASE ALLOY	P	.027		.0052
1479	6061-T6 4043	SHEET	2		.125 T	HUENEME CAL	5640	4	BASE ALLOY WELD BEAD	P			
1480	6061-T6 4043	SHEET	2		.125 T	HUENEME CAL	5640	4	BASE ALLOY WELD BEAD		NAA		0
1481	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640 SED	4	BASE ALLOY	P	.032		.0013
1511	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640	4	BASE ALLOY				
1512	6061-T6 #061	SHEET	2		.125 T	HUENEME CAL	5640	4	BASE ALLOY WELD BEAD				
1513	6061-T6 #061	SHEET	2		.125 T	HUENEME CAL	5640	4	BASE ALLOY WELD BEAD				
1482	6061-T6	SHEET	1		.125 T	HUENEME CAL	5900	6	BASE ALLOY	P	.0030	.0014	.0001
1483	6061-T6	SHEET	1		.125 T	HUENEME CAL	5900 SED	6	BASE ALLOY	P	.033	.0191	.0003
1497	6061-T6	SHEET	1		.125 T	HUENEME CAL	2340	6	BASE ALLOY	P	.047	.0390	.0012
1498	6061-T6 #061	SHEET	2		.125 T	HUENEME CAL	2340	6	BASE ALLOY WELD BEAD	P+I	.046		
1499	6061-T6	SHEET	1		.125 T	HUENEME CAL	2340 SED	6	BASE ALLOY	P	.046	.0314	.0013
1502	6061-T6	SHEET	1		.125 T	HUENEME CAL	5	6	BASE ALLOY	P	INCIP		.0010
1507	6061-T6	SHEET	1		.125 T	HUENEME CAL	2340	6	BASE ALLOY				
1508	6061-T6	SHEET	1		.125 T	HUENEME CAL	2340	6	BASE ALLOY				

TABLE 1

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR
						LOCATION	DEPTH-FT	MDS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
1517	6061-T6	SHEET	1		.125 T	HUENEME CAL	2340	6	BASE ALLOY				
1518	6061-T6	SHEET	1		.125 T	HUENEME CAL	2340	6	BASE ALLOY				
1520	6061-T6	SHEET	1		.125 T	HUENEME CAL	5	6	BASE ALLOY				
1484	6061-T6	SHEET	1		.125 T	HUENEME CAL	6780	13	BASE ALLOY	P	.058	.0484	.0010
1485	6061-T6	SHEET	1		.125 T	HUENEME CAL	6780 SED	13	BASE ALLOY	P	.060	.0453	.0007
1500	6061-T6	SHEET	1		.125 T	HUENEME CAL	2370	13	BASE ALLOY	P	.075	.0515	.0020
1501	6061-T6	SHEET	1		.125 T	HUENEME CAL	2370 SED	13	BASE ALLOY	P	.076	.0515	.0012
1503	6061-T6	SHEET	1		.125 T	HUENEME CAL	5	13	BASE ALLOY BASE EDGE	P =	.016 YES	.014	.0007
1505	6061-T6	SHEET	1		.125 T	HUENEME CAL	6780	13	BASE ALLOY				
1506	6061-T6	SHEET	1		.125 T	HUENEME CAL	6780	13	BASE ALLOY				
1509	6061-T6	SHEET	1		.125 T	HUENEME CAL	2370	13	BASE ALLOY				
1510	6061-T6	SHEET	1		.125 T	HUENEME CAL	2370	13	BASE ALLOY				
1514	6061-T6	SHEET	1		.125 T	HUENEME CAL	6780	13	BASE ALLOY				
1519	6061-T6	SHEET	1		.125 T	HUENEME CAL	2370	13	BASE ALLOY				
1504	6061-T6	SHEET	1		.125 T	HUENEME CAL	5	18	BASE ALLOY	P	.023	.0161	.0003
1486	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640	24	BASE ALLOY BASE EDGE	P =	.065 YES	.0426	.0004
1487	6061-T6 A061	SHEET	2		.125 T	HUENEME CAL	5640	24	BASE ALLOY WELD BEAD				
1488	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640	24	BASE ALLOY BASE EDGE	P =	.063 SEVER		.0026
1489	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640	24	BASE ALLOY	P	.056	.0439	.0018

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA ***** RATE IN/YR	
						LOCATION	DEPTH-FT MOB	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
1490	6061-T6 4043	SHEET	2		.125 T	HUENEME CAL	5640	24	BASE ALLOY BASE EDGE HEAT AFFECTED ZONE WELD BEAD	P - -	PERF SEVER PERF		
1491	6061-T6 4043	SHEET	2		.125 T	HUENEME CAL	5640	24	BASE ALLOY WELD BEAD	P	PERF		
1492	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640 SED	24	BASE ALLOY BASE EDGE	P -	.072 YES	.0523	.0013
1493	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640 SED	24	BASE ALLOY BASE EDGE	P -	.040 YES	.036	.0019
1515	6061-T6	SHEET	1		.125 T	HUENEME CAL	5640	24	BASE ALLOY				
1808	6061-T6	SHEET	1	PANEL	3X9X.065	HUENEME CAL	5100	35	BASE ALLOY	P	.0030	.0016	.0003
1809	6061-T6	SHEET	1	PANEL	3X9X.065	HUENEME CAL	5100	35	BASE ALLOY				
1810	6061-T6	SHEET	1	PANEL	3X9X.065	HUENEME CAL	5100	35	BASE ALLOY				
1811	6061-T6	PLATE	1	C-RING	.75 DIA	HUENEME CAL	5100	35	BASE ALLOY				
1494	6061-T6	SHEET	1		.125 T	HUENEME CAL	5300	36	BASE ALLOY BASE EDGE	P -	.077 YES	.0632	.0006
1495	6061-T6	SHEET	1		.125 T	HUENEME CAL	5300	36	BASE ALLOY BASE EDGE	P -	.059 YES	.0213	.0010
1496	6061-T6	SHEET	1		.125 T	HUENEME CAL	5300 SED	36	BASE ALLOY BASE EDGE	P -	.077 YES	.0634	.0010
1516	6061-T6	SHEET	1		.125 T	HUENEME CAL	5300	36	BASE ALLOY				
1526	6061-T6	PLATE	1	RIVETED	.25 T	KURE BEACH NC	TOTAL	12	BASE ALLOY		.0014	.0007	
1527	6061-T6 4043	PLATE	2	PANEL	.25 T	KURE BEACH NC	TOTAL	12	BASE ALLOY WELD BEAD		.0050 .0098	.0018 .0024	
1529	6061-T6	PLATE	1	PANEL	.25 T	KURE BEACH NC	TOTAL	36	BASE ALLOY		.0014	.0005	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION					GRAVI, DATA RATE IN/YR
								DEPTH-INCHES					
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	MAX	MEAN		
1816	6061-T6	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	6	BASE ALLOY	I	.0276	.0073	.0009
1817	6061-T6	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	6	BASE ALLOY	I	.0044	.0025	.0002
1812	6061-T6	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	24	BASE ALLOY	P	.0290	.0011	.0004
1813	6061-T6	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	24	BASE ALLOY	P	.0220	.0084	.0003
1814	6061-T6	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	24	BASE ALLOY	P	.0266	.0088	.0004
1815	6061-T6	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	24	BASE ALLOY	P	.0246	.0028	.0007
1530	6061-T6	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	65	BASE ALLOY	I	.0252	.0133	.0005
1531	6061-T6	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	65	BASE ALLOY	I	.0163	.0070	.0002
1532	6061-T6	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	65	BASE ALLOY	I+P	.0262	.0057	.0002
1533	6061-T6	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	65	BASE ALLOY	I	.0371	.0128	.0001
726	6061-T6	SHEET	1	TEN BLANK	.02 T	MIAMI FLA	TOTAL	3	BASE ALLOY BASE EDGE	I P	.0120 .0005	.0076	
1525	6061-T6			1 PANEL		MIAMI FLA	TOTAL	3	BASE ALLOY				
1822	6061-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY				
1823	6061-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY				
705	6061-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
706	6061-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
707	6061-T6	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P+SI	.0087	.0029	
708	6061-T6	SHEET	1	PREFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
719	6061-T6	PLATE	1	PANEL	12X12X.25	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0138	.0028	
736	6061-T6	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TW	6	BASE ALLOY	P	.0014	.0007	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR -----	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN			
737	6061-T6	SHEET	1	PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0358	.0140	
739	6061-T6	PLATE	1	C-RING	.75 DIA	MIAMI FLA	TW	6	BASE ALLOY				
740	6061-T6	PLATE	1	C-RING	.75 DIA	MIAMI FLA	TOTAL	6	BASE ALLOY				
762	6061-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
763	6061-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
720	6061-T6	PLATE	1	PANEL	12X12X.25	MIAMI FLA	TOTAL	12	BASE ALLOY	UP	.0088	.0070	
727	6061-T6	SHEET	1	TEN BLANK	.02 T	MIAMI FLA	TOTAL	12	BASE ALLOY BASE EDGE	I I	.0125 .0493	.0070	
742	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TW	12	BASE ALLOY		NAA		
750	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	12	BASE ALLOY	I	.0109	.0039	
1796	6061-T6	PLATE	2	PANEL	4X9X.25	MIAMI FLA	TOTAL	12	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P+I P P NAA	.0191 .0008 .0020 NAA	.0082	
4043													
1797	6061-T6	PLATE	2	PANEL	4X9X.25	MIAMI FLA	TOTAL	12	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	P+SI P ID ID	.0453 .0016 .0029 .0423	.0055	
5556													
1798	6061-T6	PLATE	3	PANEL	4X9X.25	MIAMI FLA	TOTAL	12	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD OTHER ALLOY BASE HEAT AFFECTED ZONE	P P+SI ID P P	.0065 .0011 .0072 .0099 .0051	.0016	
5554													
5454-N32													
709	6061-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.023	.018	
710	6061-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.017	.010	
721	6061-T6	PLATE	1	PANEL	12X12X.25	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0115	.0033	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION					GRAVI. DATA ----- RATE IN/YR
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
743	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TH	24	BASE ALLOY	I	.0068	.0041	
751	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	24	BASE ALLOY	I	.0147	.0115	
1534	6061-T6	WIRE	1	WIRE	.145 DIA	MIAMI FLA	TOTAL	24	BASE ALLOY	I	.0281	.0112	
1535	6061-T6	WIRE	1	WIRE	.145 DIA	MIAMI FLA	TOTAL	24	BASE ALLOY	I	.0189	.0070	
1799	6061-T6	PLATE	2	PANEL	4X9X.25	MIAMI FLA	TOTAL	24	BASE ALLOY	P+SI	.0398	.0238	
	4043							HEAT AFFECTED ZONE	I	.0047	.0012		
								WELD BEAD	ID	.0035	.0025		
								KNIFE LINE ATTACK		.0427			
1800	6061-T6	PLATE	2	PANEL	4X9X.25	MIAMI FLA	TOTAL	24	BASE ALLOY	P+SI	.0628	.0238	
	5556							HEAT AFFECTED ZONE	I	.0116	.0044		
								WELD BEAD	ID	.0136	.0034		
								KNIFE LINE ATTACK		.0374			
1801	6061-T6	PLATE	3	PANEL	4X9X.25	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.0018	.0012	
	5554							HEAT AFFECTED ZONE	P	.0020	.0010		
								WELD BEAD	ID	.0049	.0014		
	5454-H32							KNIFE LINE ATTACK		.0109			
								OTHER ALLOY BASE	P		.006		
								HEAT AFFECTED ZONE	P		.0011		
711	6061-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.043	.024	
712	6061-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.033	.028	
722	6061-T6	PLATE	1	PANEL	12X12X.25	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.0005	.0002	
744	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TH	36	BASE ALLOY	I+P	.0046	.0022	
752	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	36	BASE ALLOY	I+P	.0063	.0019	
1802	6061-T6	PLATE	2	PANEL	4X9X.25	MIAMI FLA	TOTAL	36	BASE ALLOY	I+P	.0300	.0110	
	4013							HEAT AFFECTED ZONE	P	.0011	.0008		
								WELD BEAD	P	.0008	.0004		
								KNIFE LINE ATTACK		.0014			

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA ----- RATE IN/YR -----	
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
1803	6061-T6 5556	PLATE	2	PANEL	4X9X.25	MIAMI FLA	TOTAL	36	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK	I I ID	.0460 .0054 .0068 .0300	.0064 .0041 .0054	
1804	6061-T6 5554 9454-H32	PLATE	3	PANEL	4X9X.5	MIAMI FLA	TOTAL	36	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD KNIFE LINE ATTACK OTHER ALLOY BASE HEAT AFFECTED ZONE	P P+I P P P	.0046 .0020 .0046 .0027 .0068 .0014	.0019 .0010 .0019 .0027 .0027 .0005	
713	6061-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.046	.039	
714	6061-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.033	.020	
723	6061-T6	PLATE	1	PANEL	12X12X.25	MIAMI FLA	TOTAL	48	BASE ALLOY	UP	.0224	.0007	
745	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TW	48	BASE ALLOY	I	.0042	.0021	
753	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	48	BASE ALLOY	I	.0290	.0031	
758	6061-T6	ANGLE	1	ANGLE	2X2X12	MIAMI FLA	TW	48	BASE ALLOY	P	.0022	.0027	
759	6061-T6	ANGLE	1	ANGLE	2X2X12	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.0265	.0130	
1805	6061-T6 4043	PLATE	2	PANEL	4X9X.25	MIAMI FLA	TOTAL	48	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	I P ID	.0140 .0028 .0018	.0069 .0006 .0013	
1806	6061-T6 5556	PLATE	2	PANEL	4X9X.25	MIAMI FLA	TOTAL	48	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD	I P+S1 ID	.0228 .0092 .0158	.0070 .0035 .0118	
1807	6061-T6 5554 9454-H32	PLATE	3	PANEL	4X9X.5	MIAMI FLA	TOTAL	48	BASE ALLOY HEAT AFFECTED ZONE WELD BEAD OTHER ALLOY BASE	UP P P P	.0035 .0005 NAA	.0021 .0004	
715	6061-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.062	.051	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD FD CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI, DATA RATE IN/YR
						LOCATION	DEPTH-FT	MO	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
716	6061-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.050	.033	
724	6061-T6	PLATE	1	PANEL	12X12X.25	MIAMI FLA	TOTAL	60	BASE ALLOY	EXF	.0135	.0065	
746	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TW	60	BASE ALLOY	P+I	.0055	.0023	
754	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	60	BASE ALLOY	P+I	.0117	.0032	
717	6061-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.064	.054	
718	6061-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.051	.031	
725	6061-T6	PLATE	1	PANEL	12X12X.25	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.040		
747	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TW	72	BASE ALLOY	P+I	.0041	.0018	
745	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	72	BASE ALLOY	P+I	.0119	.0045	
748	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TW	84	BASE ALLOY	P+I	.0067	.0024	
756	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	84	BASE ALLOY	P+I	.0037	.0020	
749	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TW	96	BASE ALLOY	P	.0029	.0017	
757	6061-T6	SHEET	1	PANEL	4X9X.125	MIAMI FLA	TOTAL	96	BASE ALLOY	P+I	.0141	.0103	
730	6061-T6	SHEET	1			TONGUE OF OCEAN	5600	4	BASE ALLOY	P	.0020	.0017	.0006
738	6061-T6	SHEET	1	PANEL	3X9X.065	TONGUE OF OCEAN	5100	4	BASE ALLOY	P	.0025	.0016	
741	6061-T6	PLATE	1	CORING	.75 DIA	TONGUE OF OCEAN	5100	4	BASE ALLOY				
728	6061-T6	PLATE	1	PANEL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.040	.020	
729	6061-T6	PLATE	1	PANEL	1X2X.25	TONGUE OF OCEAN	4200	12	BASE ALLOY	P	.050	.030	
731	6061-T6	SHEET	1			TONGUE OF OCEAN	5600	34	BASE ALLOY	P	.0032	.0030	.0005
1536	6061-T911	WIRE	1	WIRE	.145 DIA	MIAMI FLA	TOTAL	24	BASE ALLOY	I+P	.0182	.0064	
1537	6061-T911	WIRE	1	WIRE	.145 DIA	MIAMI FLA	TOTAL	24	BASE ALLOY	I	.0109	.0047	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR	
								DEPTH-INCHES					
						LOCATION	DEPTH-FT MOS	LOCATION EXAMINED	TYPE	MAX	MEAN		
1538	6061-T913	WIRE	1	WIRE	.145 DIA	MIAMI FLA	TOTAL	24	BASE ALLOY	I+P	.0250	.0077	
1539	6061-T913	WIRE	1	WIRE	.145 DIA	MIAMI FLA	TOTAL	24	BASE ALLOY	I	.0294	.0077	
618	6063-T6	EXTR	1	PANFL	3X9X.065	LONG BEACH CAL	TOTAL	6	BASE ALLOY	P	.0004	.0003	.0003
619	6063-T6	EXTR	1	PANFL	3X9X.065	LONG BEACH CAL	TW	6	BASE ALLOY	P	.0004	.0003	.0003
614	6063-T6	EXTR	1	PANFL	3X9X.065	LONG BEACH CAL	TOTAL	24	BASE ALLOY		.0056	.0004	.0002
615	6063-T6	EXTR	1	PANFL	3X9X.065	LONG BEACH CAL	TW	24	BASE ALLOY		.0022	.0003	.0001
616	6063-T6	EXTR	1	PANFL	3X9X.065	LONG BEACH CAL	TOTAL	24	BASE ALLOY		.0399	.0004	.0004
617	6063-T6	EXTR	1	PANFL	3X9X.065	LONG BEACH CAL	TW	24	BASE ALLOY		.0006	.0003	.0002
610	6063-T6	EXTR	1	PANFL	3X9X.065	LONG BEACH CAL	TOTAL	65	BASE ALLOY	P+SI	.0054	.0032	.0001
611	6063-T6	EXTR	1	PANFL	3X9X.065	LONG BEACH CAL	TW	65	BASE ALLOY	I	.0109	.0054	.0001
612	6063-T6	EXTR	1	PANFL	3X9X.065	LONG BEACH CAL	TOTAL	65	BASE ALLOY	P+SI	.0245	.0142	.0001
613	6063-T6	EXTR	1	PANFL	3X9X.065	LONG BEACH CAL	TW	65	BASE ALLOY	I	.0101	.0046	.0001
600	6066-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY				
601	6066-T4	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
602	6066-T4	SHEET	1	PANFL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.018	.0040	
603	6066-T4	SHEET	1	PERFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
604	6066-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY				
605	6066-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY				
606	6066-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
607	6066-T6	SHEET	1	TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY				
608	6066-T6	SHEET	1	PANFL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	I	.023	.0045	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD. OF	SC PD ED TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
					LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
									MAX.	MEAN	
509	6060-T6	SHEET	1 PREFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
596	6151-T4	SHEET	1 TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
597	6151-T4	SHEET	1 TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
598	6151-T6	SHEET	1 TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
599	6151-T6	SHEET	1 TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
1546	6351-T4	SHEET	1 TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY			
1547	6351-T4	SHEET	1 TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
1548	6351-T4	SHEET	1 PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P	.0043	.0008
1549	6351-T4	SHEET	1 PREFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
1550	6351-T6	SHEET	1 TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY			
1551	6351-T6	SHEET	1 TEN BLANK	.065 T	MIAMI FLA	TOTAL	3	BASE ALLOY			
1552	6351-T6	SHEET	1 TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
1553	6351-T6	SHEET	1 TEN BLANK	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
1554	6351-T6	SHEET	1 PANEL	3X9X.065	MIAMI FLA	TOTAL	6	BASE ALLOY	P+S1	.0102	.0014
1555	6351-T6	SHEET	1 PREFORM	.065 T	MIAMI FLA	TOTAL	6	BASE ALLOY			
1556	6351-T6	EXTR	1 PANEL	3X12X.25	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.025	.016
1557	6351-T6	EXTR	1 PANEL	3X12X.25	MIAMI FLA	TOTAL	24	BASE ALLOY	P	.017	.013
1558	6351-T6	EXTR	1 PANEL	3X12X.25	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.022	.014
1559	6351-T6	EXTR	1 PANEL	3X12X.25	MIAMI FLA	TOTAL	36	BASE ALLOY	P	.021	.006
1560	6351-T6	EXTR	1 PANEL	3X12X.25	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.026	.019
1561	6351-T6	EXTR	1 PANEL	3X12X.25	MIAMI FLA	TOTAL	48	BASE ALLOY	P	.030	.020

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROG.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR	
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES			
										MAX.	MEAN		
1562	6351-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.026	.020	
1563	6351-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	60	BASE ALLOY	P	.035	.024	
1564	6351-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.027	.020	
1565	6351-T6	EXTR	1	PANEL	3X12X.25	MIAMI FLA	TOTAL	72	BASE ALLOY	P	.025	.022	
1566	6351-T6	SHEET	2	PANEL	3X12X.02	SKAGERAK	TOTAL	54	BASE ALLOY HEAT AFFECTED ZONE - WELD BEAD	-	.0197 .0787		
	4043												
194	ALC3003-	PLATE	1	PANEL	12X12X.25	ESQUIMALT BC	TOTAL	24	BASE ALLOY	P	.013		
192	ALC3003-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY		NAA		
193	ALC3003-	PLATE	1	PANEL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.013		
190	ALC3003-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY		NAA		
191	ALC3003-	PLATE	1	PANEL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.012		
131	ALC3003-		1			HUENEME CAL	5640	4	BASE ALLOY	GEN	.0000		.0027
133	ALC3003-		1			HUENEME CAL	5640 SED	4	BASE ALLOY	GEN	.0000		.0026
157	ALC3003-		1			HUENEME CAL	5	4	BASE ALLOY	P	.0020		.0010
149	ALC3003-		1			HUENEME CAL	2340	6	BASE ALLOY	GEN	.0000		.0023
151	ALC3003-		1			HUENEME CAL	2340 SED	6	BASE ALLOY	P	.0020		.0001
158	ALC3003-		1			HUENEME CAL	5	12	BASE ALLOY	P	.0020		.0005
135	ALC3003-		1			HUENEME CAL	6780	13	BASE ALLOY		.0000		.0025
137	ALC3003-		1			HUENEME CAL	6780 SED	13	BASE ALLOY		.0000		.0004
153	ALC3003-		1			HUENEME CAL	2370	13	BASE ALLOY		.0000		.0016
155	ALC3003-		1			HUENEME CAL	2370 SED	13	BASE ALLOY		.0000		.0004

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO NO CK	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT	MO	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
130	AlC3003-		1			HUENEWE CAL	5640	24	BASE ALLOY	GEN	.0000		.0014
141	AlC3003-		1			HUENEWE CAL	5640 SED	24	BASE ALLOY	GEN	.0000		.0015
145	AlC3003-		1			HUENEWE CAL	5300	36	BASE ALLOY	GEN	.0000		.0015
147	AlC3003-		1			HUENEWE CAL	5300 SED	36	BASE ALLOY	GEN	.0000		.0006
130	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	5640	4	BASE ALLOY BASE EDGE	P+BL -	.0160 SLGHT	.0146	.0002
132	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	5640 SED	4	BASE ALLOY BASE EDGE	P+BL -	.0195 SLGHT	.0145	.0028
156	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	5	4	BASE ALLOY	P	INCIP		.0010
142	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	5640	4	BASE ALLOY				
148	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	2340	6	BASE ALLOY	P	.0150	.0131	.0022
150	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	2340 SED	6	BASE ALLOY	P	.0140	.0125	.0011
146	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	2340	6	BASE ALLOY				
148	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	5	6	BASE ALLOY				
134	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	6780	13	BASE ALLOY BASE EDGE	P -	.0140 SLGHT	.0130	.0004
136	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	6780 SED	13	BASE ALLOY BASE EDGE	P -	.0140 SLGHT	.0130	.0002
152	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	2370	13	BASE ALLOY	P	.0140	.0129	.0022
154	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	2370 SED	13	BASE ALLOY	P	.0130	.0072	.0018
159	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	5	13	BASE ALLOY	P	.0160	.0153	.0011
160	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	5	13	BASE ALLOY	P	.0160	.0086	.0003
163	AlC3003-H12	SHEET	1		.125 T	HUENEWE CAL	6780	13	BASE ALLOY				

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC ED CE	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI. DATA
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES MAX, MEAN	RATE IN/YR	
167	ALC3003-H12	SHEET	1		.125 T	HUENEME CAL	2370	13	BASE ALLOY				
161	ALC3003-H12	SHEET	1		.125 T	HUENEME CAL	5	19	BASE ALLOY	P	.0170 .0155	.0018	
138	ALC3003-H12	SHEET	1		.125 T	HUENEME CAL	5640	24	BASE ALLOY BASE EDGE	P -	.0130 .0128 YES	.0003	
140	ALC3003-H12	SHEET	1		.125 T	HUENEME CAL	5640 SED	24	BASE ALLOY BASE EDGE	P -	.0140 .0132 YES	.0024	
164	ALC3003-H12	SHEET	1		.125 T	HUENEME CAL	5640	24	BASE ALLOY				
143	ALC3003-H12	SHEET	1		.125 T	HUENEME CAL	5300	36	BASE ALLOY BASE EDGE	P -	.0200 .0165 .0000	.0007	
144	ALC3003-H12	SHEET	1		.125 T	HUENEME CAL	5300	36	BASE ALLOY BASE EDGE	P -	.0150 .0148 .0000	.0003	
146	ALC3003-H12	SHEET	1		.125 T	HUENEME CAL	5300 SED	36	BASE ALLOY	P	.0160 .0156	.0008	
165	ALC3003-H12	SHEET	1		.125 T	HUENEME CAL	5300	36	BASE ALLOY				
170	ALC3003-H14	SHEET	1	PANEL	4X9X.065	CORPUS CHRISTI TEX	FLUME	22	BASE ALLOY		.0056 .0042	.0009	
173	ALC3003-H14		1	PANEL		EAST RIVER HARBOR NY	TOTAL	24	BASE ALLOY				
174	ALC3003-H14		1	PANEL		EAST RIVER HARBOR NY	A.I.	24	BASE ALLOY				
181	ALC3003-H14		1	PANEL		HUDSON R EDGEWATER NJ	TOTAL	12	BASE ALLOY				
182	ALC3003-H14		1	PANEL		HUDSON R EDGEWATER NJ	A.I.	12	BASE ALLOY				
129	ALC3003-H14		1			HUENEME CAL	5640	4	BASE ALLOY	P	INCIP		
169	ALC3003-H14		1		.125 T	HUENEME CAL	5640	4	BASE ALLOY				
142	ALC3003-H14		1			HUENEME CAL	5640	24	BASE ALLOY		.0000		
183	ALC3003-H14	PLATE	1	PANEL		KURE BEACH NC	TOTAL	60	BASE ALLOY		.0014 .0007		
188	ALC3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	6	BASE ALLOY	P	.0025 .0015	.0005	

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PD ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED			RESULTS OF EXAMINATION				GRAVI, DATA RATE IN/YR
						LOCATION	DEPTH-FT	MOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
											MAX.	MEAN	
189	ALC3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	6	BASE ALLOY	P	.0016	.0007	.0003
186	ALC3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TOTAL	24	BASE ALLOY	P	.0025	.0006	.0002
187	ALC3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	24	BASE ALLOY	P	.0028	.0007	.0002
184	ALC3003-H14	SHEET	1	PANEL	4X9X.25	LONG BEACH CAL	TOTAL	65	BASE ALLOY	P	.0036	.0025	.0001
185	ALC3003-H14	SHEET	1	PANEL	4X9X.065	LONG BEACH CAL	TW	65	BASE ALLOY	P	.0020	.0019	.0001
177	ALC3003-H14		1	PANEL		MOBILE ALA	TOTAL	24	BASE ALLOY				
178	ALC3003-H14		1	PANEL		MOBILE ALA	A,I,	24	BASE ALLOY				
171	ALC3003-H14		1	PANEL		MONTREAL QUE	TOTAL	12	BASE ALLOY				
172	ALC3003-H14		1	PANEL		MONTREAL QUE	A,I,	12	BASE ALLOY				
179	ALC3003-H14		1	PANEL		NEW ORLEANS LA	TOTAL	24	BASE ALLOY				
180	ALC3003-H14		1	PANEL		NEW ORLEANS LA	A,I,	24	BASE ALLOY				
175	ALC3003-H14		1	PANEL		NORFOLK VA	TOTAL	12	BASE ALLOY				
176	ALC3003-H14		1	PANEL		NORFOLK VA	A,I,	24	BASE ALLOY				
201	ALC3004-	SHEET	1	PANEL	4X9X.034	LONG BEACH CAL	TOTAL	6	BASE ALLOY	P	.0013	.0010	.0005
202	ALC3004-	SHEET	1	PANEL	4X9X.034	LONG BEACH CAL	TW	6	BASE ALLOY	P	.0012	.0004	.0003
199	ALC3004-	SHEET	1	PANEL	4X9X.034	LONG BEACH CAL	TOTAL	24	BASE ALLOY	P	.0014	.0006	.0002
200	ALC3004-	SHEET	1	PANEL	4X9X.034	LONG BEACH CAL	TW	24	BASE ALLOY	P	.0014	.0011	.0002
197	ALC3004-	SHEET	1	PANEL	4X9X.034	LONG BEACH CAL	TOTAL	65	BASE ALLOY	P	.0016	.0010	.0001
198	ALC3004-	SHEET	1	PANEL	4X9X.034	LONG BEACH CAL	TW	65	BASE ALLOY	P	.0016	.0013	.0001
626	ALC6061-	PLATE	1	PANEL	12X12X.25	ESQUIMAULT BC	TOTAL	12	BASE ALLOY	P	.011		
627	ALC6061-	PLATE	1	PANEL	12X12X.25	ESQUIMAULT BC	TOTAL	24	BASE ALLOY	P	.013		

TABLE I

IDENT. NUMBER	ALLOY AND TEMPER	PROD.	SC PO ED CF	TYPE OF SPECIMEN	SPECIMEN SIZE INCHES	DETAILS OF SPECIMEN EXPOSED		RESULTS OF EXAMINATION				GRAVI. DATA RATE IN/YR
						LOCATION	DEPTH-FT NOS	LOCATION EXAMINED	TYPE	DEPTH-INCHES		
										MAX.	MEAN	
-----	-----	-----	---	-----	-----	-----	-----	-----	-----	-----	-----	-----
628	ALC6061-	PLATE	1	PANFL	12X12X.25	ESQUIMALT BC	TOTAL	60	BASE ALLOY	P	.0090	
623	ALC6061-	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	12	BASE ALLOY	P	.0090	
624	ALC6061-	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	24	BASE ALLOY	P	.011	
625	ALC6061-	PLATE	1	PANFL	12X12X.25	HALIFAX NS	TOTAL	60	BASE ALLOY	P	.0090	
620	ALC6061-	PLATE	1	PANFL	12X12X.25	HARBOR ISLAND NC	TOTAL	12	BASE ALLOY	P	.010	
621	ALC6061-	PLATE	1	PANFL	12X12X.25	HARBOR ISLAND NC	TOTAL	24	BASE ALLOY	P	.010	
622	ALC6061-	PLATE	1	PANFL	12X12X.25	HARBOR ISLAND NC	TOTAL	60	BASE ALLOY	P	.0090	

KEY TO ABBREVIATIONS USED IN TABLE II

<u>Column Heading</u>	<u>Explanation of Abbreviations</u>
Ident. Number	IDENT = Identification
Metal Condition	Vapor DEG = Vapor Degreased; ACET CLEAN = Acetone Cleaned; CHEM Clean = Chemically Cleaned; 1 WK 100 C = Heated 1 week at 100°Centegrade
MFGR	MFGR = Manufacturer; ALCOA = Aluminum Company of America; ALCAN = Aluminum Company of Canada; REY = Reynolds Metals Company
Crevice Attack	MAX = Maximum; PERF = Perforated; INCIP = Incipient; SEVRE = Severe; PF = Perforated
FREQ PIT/SQCM	FREQ = Frequency; SQCM = Square Centimeter
Stress	
Corrosion	KSI = Kips per Square Inch (1 Kip = 1000 pounds); F/N = Ratio of Specimens Failed to Specimens Exposed
Change in Property	T.S. = Tensile Strength; EL = Elongation
Method Used to Measure PITS	PIT GAGE = Pit Depth Gage; X-SECT. = Cross-Section Examined by Metallographic Technique; MICROSC. = Microscope.
Sea Water Exposure Condition	FT/SEC = Feet per Second; TEMP (C) = Temperature in Degrees Centigrade
Reference	ML/L = Milliliters per Liter; PPM = Parts Per Million; Barnac = Barnacles ALCOA = Aluminum Company of America; LIT = Literature

TABLE II

MISCELLANEOUS CORROSION INFORMATION																		
ADDITIONAL SAMPLE DESCRIPTION				CREVICE		STRESS		CHANGE IN		METHOD		SEA WATER EXPOSURE CONDITION						
IDENT. NUMBER	ALLOY AND TEMPER	METAL CONDITION	MFGN	ATTACK	FREQ	CORROSION	PROPERTY		USED TO	FLOW	TEMP	O2	SAL	CO2	CO3	MARINE	GROWTH	REFERENCE
				DEPTH	PIT/	-----	TS	EL	MEASURE									
				INCHES	SQCM	KSI	F/M	%	%	PITS	SEC							
53	1100-H14		ALCAN															LIT 9
54	1100-H14		ALCAN															LIT 9
55	1100-H14		ALCAN															LIT 9
56	1100-H14		ALCAN															LIT 9
49	1100-H14		ALCAN															LIT 9
50	1100-H14		ALCAN															LIT 9
51	1100-H14		ALCAN															LIT 9
52	1100-H14		ALCAN															LIT 9
1	1100-H14			0							0,05	7,6	2,3	1,34	34510			LIT 263
2	1100-H14			0														LIT 263
10	1100-H14			PERF							0,10	7,5	5,0	0,4	34360			LIT 263
11	1100-H14			INCIP														LIT 263
18	1100-H14			SEVRE							VAR	8,1	15	5,25	33510			LIT 263
19	1100-H14			.013							VAR	8,1	15	5,25	33510			LIT 263
3	1100-H14			PERF							0,05	7,7	2,2	1,6	34400			LIT 263
4	1100-H14			PERF														LIT 263
12	1100-H14			PERF							0,10	7,5	5,0	0,4	34360			LIT 263
13	1100-H14			.026														LIT 263
14	1100-H14			PERF							0,10	7,5	5,0	0,4	34360			LIT 263
15	1100-H14					8	0/3				0,10	7,5	5,0	0,4	34360			LIT 263
16	1100-H14					12	0/3				0,10	7,5	5,0	0,4	34360			LIT 263
17	1100-H14							-2	+14		0,10	7,5	5,0	0,4	34360			LIT 3

TABLE II

				MISCELLANEOUS CORROSION INFORMATION							SEA WATER EXPOSURE CONDITION							
ADDITIONAL SAMPLE DESCRIPTION				CREVICE	STRESS			CHANGE IN		METHOD								
IDENT. NUMBER	ALLOY AND TEMPER	METAL CONDITION	MFGR	ATTACK	FREQ	CORROSION	PROPERTY		USED TO	FLOW	TEMP	O2	SAL	CO2	CO3	MAHINE	REFERENCE	
				DEPTH	PIT/		TS	EL	MEASURE	FT/	PH	(C)	ML/L	PPM	PPM	PPM		GROWTH
				INCHES	SQCM	KSI	F/N	%	%	PITS	SEC							
83	3003-			.040							0.10	7.5	9.0	0.4	34360		LIT 243	
85	3003-			INCIP													LIT 243	
94	3003-										VAR	8.1	15	5.25	33510		LIT 243	
95	3003-										VAR	8.1	15	5.25	33510		LIT 243	
70	3003-			.05 PF							0.05	7.7	2.2	1.6	34400		LIT 243	
72	3003-			.066													LIT 243	
87	3003-			.040 PF							0.10	7.5	9.0	0.4	34360		LIT 243	
89	3003-			.050 PF													LIT 243	
74	3003-			.040 PF							0.05	7.6	2.3	1.3	34510		LIT 243	
76	3003-			.040 PF													LIT 243	
78	3003-										0.05	7.5	2.6	1.2	34510		LIT 243	
80	3003-			.05 PF													LIT 243	
113	3003-F		ALCOA							X-SECT							ALCOA 24	
115	3003-F		ALCOA							X-SECT							ALCOA 24	
211	3003-F	MACHINED	ALCOA									4.6	5.18	35160			ALCOA 7	
212	3003-F	MILL FINISH	ALCOA									4.6	5.18	35160			ALCOA 7	
116	3003-H14		ALCOA					-1									ALCOA 3	
171	3003-H14		ALCOA					0									ALCOA 3	
225	3003-H14																LIT 9	
226	3003-H14																LIT 9	
227	3003-H14							-0.2	-1.5								LIT 9	
125	3003-H14		ALCOA					-9		X-SECT	0.50						ALCOA 15	

TABLE II

MISCELLANEOUS CORROSION INFORMATION

IDENT. NUMBER	ADDITIONAL SAMPLE DESCRIPTION			CREVICE		STRESS		CHANGE IN		METHOD USED TO MEASURE	SEA WATER EXPOSURE CONDITION										REFERENCE
				ATTACK	FREQ	CORROSION	PROPERTY	FLOW	TEMP		O2	SAL	CO2	CO3	MARINE						
	ALLOY AND TEMPER	METAL CONDITION	MEGR	MAX DEPTH INCHES	PII/ SQCM	KSI	F/N	TS %	EL %	FT/ SEC	PH	(C)	ML/L	PPM	PPM	PPM	GROWTH				
221	3003-H14																	LIT 9			
222	3003-H14																	LIT 9			
223	3003-H14																	LIT 9			
224	3003-H14																	LIT 9			
124	3003-H14		ALCOA					-3		0.50				.5				ALCOA 14			
217	3003-H14																	LIT 9			
218	3003-H14																	LIT 9			
219	3003-H14																	LIT 9			
220	3003-H14																	LIT 9			
213	3003-H14																	LIT 9			
214	3003-H14																	LIT 9			
215	3003-H14																	LIT 9			
216	3003-H14																	LIT 9			
65	3003-H14			.032	0.74					0.05	7.6	2.3	1.3	34510				LIT 263			
67	3003-H14			.068	0.73													LIT 263			
99	3003-H14							-4	-43	0.05	7.6	2.3	1.3	34510				LIT 263			
105	3003-H14							+4	-1	VAR	8.1	15	5.25	33100				LIT 263			
81	3003-H14		DEY	0						0.10	7.5	5.0	0.4	34360				LIT 3			
82	3003-H14			.078	0.25					0.10	7.5	5.0	0.4	34360				LIT 263			
84	3003-H14			.0250	.05													LIT 263			
93	3003-H14				0.23					VAR	8.1	15	5.25	33510				LIT 263			
104	3003-H14							-6	+15	0.10	7.5	5.0	0.4	34360				LIT 263			

TABLE II

				MISCELLANEOUS CORROSION INFORMATION							SEA WATER EXPOSURE CONDITION							
ADDITIONAL SAMPLE DESCRIPTION				CREVICE	STRESS		CHANGE IN		METHOD									
IDENT. NUMBER	ALLOY AND TEMPER	METAL CONDITION	MFGR	ATTACK	FREQ	CORROSION	PROPERTY		USED TO	FLOW	TEMP	O2	SAL	CO2	CO3	MARINE	REFERENCE	
				MAX DEPTH INCHES	PIT/ SQCM	KSI F/N	TS %	EL %	MEASURE PITS	FT/ SEC	PH	(C)	ML/L	PPM	PPM	PPM		GROWTH
196	3004-H34	MILL FINISH	ALCOA				-22	-78	X-SECT								ALCOA 41	
228	5050-H34		REY	0						0.10	7.5	5	0.4	34360			LIT 263	
229	5050-H34			.031						0.10	7.5	5	0.4	34360			LIT 263	
230	5050-H34			.031													LIT 263	
231	5050-H34					11	0/3			0.10	7.5	5	0.4	34360			LIT 263	
232	5050-H34					17	0/3			0.10	7.5	5	0.4	34360			LIT 263	
233	5050-H34							+2	+25	0.10	7.5	5	0.4	34360			LIT 263	
321	5052-																LIT 9	
322	5052-							-0.2	+0.7								LIT 9	
306	5052-H18							+10									LIT 6	
241	5052-H22									0.05	7.5	2.6	1.2	34310			LIT 263	
250	5052-H32			0						0.10	7.5	5.0	0.4	34760			LIT 263	
251	5052-H32			0						0.10	7.5	5.0	0.4	34360			LIT 263	
263	5052-H32					8	0/3			0.10	7.5	5.0	0.4	34360			LIT 263	
264	5052-H32					21	0/3			0.10	7.5	5.0	0.4	34360			LIT 263	
268	5052-H32							-3	-3	0.05	7.5	5.0	0.4	34360			LIT 263	
249	5052-H32			0						0.05	7.7	2.2	1.6	34400			LIT 263	
252	5052-H32			0						.1	7.5	5.0	.4	34360			LIT 263	
261	5052-H32					8	0/3			0.05	7.7	2.2	1.6	34400			LIT 263	
262	5052-H32					21	0/3			0.10	7.5	5.0	0.4	34360			LIT 263	
265	5052-H32					8	0/3			0.10	7.5	5.0	0.4	34360			LIT 263	
266	5052-H32					21	0/3			0.10	7.5	5.0	0.4	34360			LIT 263	

TABLE II

MISCELLANEOUS CORROSION INFORMATION

IDENT. NUMBER	ADDITIONAL SAMPLE DESCRIPTION				CREVICE ATTACK MAX DEPTH INCHES	FREQUENCY PIT/100CM	STRESS CORROSION		CHANGE IN PROPERTY		METHOD USED TO MEASURE PITS	SEA WATER EXPOSURE CONDITION								REFERENCE
	ALLOY AND TEMPER	METAL CONDITION	MEGR				KSI	F/N	TS	EL		FLOW FT/SEC	PH	TEMP (C)	O2 ML/L	SAL PPM	CO2 PPM	CO3 PPM	MARINE GROWTH	
301	5052-H34			ALCOA					-1											ALCOA 16
280	5052-H34	MILL FINISH		ALCOA					-6		X-SECT									ALCOA 21
281	5052-H34	MILL FINISH		ALCOA							X-SECT									ALCOA 21
282	5052-H34	MILL FINISH		ALCOA					-5		X-SECT									ALCOA 22
283	5052-H34	MILL FINISH		ALCOA							X-SECT									ALCOA 22
284	5052-H34	MILL FINISH		ALCOA					-1		X-SECT									ALCOA 2
302	5052-H34			ALCOA					-4											ALCOA 16
303	5052-H34			ALCOA					-3											ALCOA 16
296	5052-H34			ALCOA					+1											ALCOA 16
297	5052-H34			ALCOA					-4											ALCOA 16
304	5052-H34			ALCOA					-2											ALCOA 16
305	5052-H34			ALCOA					-1											ALCOA 16
298	5052-H34			ALCOA							X-SECT									ALCOA 56
295	5052-H34			ALCOA							X-SECT									ALCOA 56
285	5052-0	MILL FINISH		ALCOA					0											ALCOA 3
290	5052-0	MILL FINISH		ALCOA					0											ALCOA 3
234	5052-0				PERF							0.05	7.6	2.3	1.3	34510				LIT 263
235	5052-0				PERF															LIT 263
243	5052-0				PERF							0.10	7.5	5.0	0.4	34360				LIT 263
244	5052-0				INCIP															LIT 263
247	5052-0				0							VAR	8.1	15	5.25	33510				LIT 263
248	5052-0				.0050							VAR	8.1	15	5.25	33510				LIT 263

TABLE II

MISCELLANEOUS CORROSION INFORMATION

IDENT. NUMBER	ADDITIONAL SAMPLE DESCRIPTION			CREVICE		STRESS		CHANGE IN		METHOD USED TO MEASURE PITS	SEA WATER EXPOSURE CONDITION								MARINE GROWTH	REFERENCE
				ATTACK MAX DEPTH INCHES	FREQ PIT/ SOCK	CORROSION	PROPERTY	TS	EL		FLOW	TEMP	O2	SAL	CO2	CO3				
	ALLOY AND TEMPER	METAL CONDITION	MEGP			KSI	F/N	%	%	FT/ SEC	PH	(C)	ML/L	PPM	PPM	PPM				
445	50R3-H113							+4	+26		0.05	7.0	2.3	1.3	34510		LIT 263			
415	50R3-H113			INCIP							0.05	7.4	2.3	1.6	34600		LIT 263			
416	50R3-H113			.03													LIT 263			
417	50R3-H113			.11							7.4	2.3	1.6	34600		LIT 263				
418	50R3-H113			0													LIT 263			
424	50R3-H113			0							0.10	7.5	5.0	0.4	34360		LIT 263			
425	50R3-H113			0	0.11						0.10	7.5	5.0	0.4	34360		LIT 263			
426	50R3-H113			0													LIT 263			
427	50R3-H113			0	0.03												LIT 263			
434	50R3-H113			.0030							VAR	8.1	15	5.25	33510		LIT 263			
436	50R3-H113			0							VAR	8.1	15	5.25	33510		LIT 263			
444	50R3-H113					15	0/3				0.05	7.7	2.2	1.6	34400		LIT 263			
449	50R3-H113							-1	+37		0.10	7.5	5.0	0.4	34360		LIT 263			
450	50R3-H113							+6	+21		0.10	7.5	5.0	0.4	34360		LIT 263			
453	50R3-H113							-2	+16		VAR	8.1	15	5.25	33510		LIT 263			
454	50R3-H113							+9	+8		VAR	8.1	15	5.25	33510		LIT 263			
419	50R3-H113			INCIP	0.19						0.05	7.7	2.2	1.6	34400		LIT 263			
420	50R3-H113			0	0.17												LIT 263			
421	50R3-H113			0	0.93						0.05	7.7	2.2	1.6	34400		LIT 263			
422	50R3-H113			0	0.16												LIT 263			
428	50R3-H113			.052							0.10	7.5	5.0	0.4	34360		LIT 263			
430	50R3-H113			0	.051						0.10	7.5	5.0	0.4	34360		LIT 263			

TABLE II

MISCELLANEOUS CORROSION INFORMATION															
ADDITIONAL SAMPLE DESCRIPTION				CREVICE	STRESS		CHANGE IN		METHOD	SEA WATER EXPOSURE CONDITION					
IDENT. NUMBER	ALLOY AND TEMPER	METAL CONDITION	MFGR	ATTACK	FREQ	CORROSION	PROPERTY		USED TO MEASURE PITS	FLOW FT/ SEC	TEMP PH (C)	O2 ML/L	SAL PPM	CO2 PPM	CO3 PPM MARINE GROWTH
				MAX DEPTH INCHES	PIT/ SOCM	KSI F/N	TS %	EL %							
431	5083-H113			.0571											LIT 243
433	5083-H113			0	<.02										LIT 243
438	5083-H113			0						VAR	8.1 15	5.25	33510		LIT 243
439	5083-H113			.1141						VAR	8.1 15	5.25	33510		LIT 243
440	5083-H113			INCIP						VAR	8.1 15	5.25	33510		LIT 243
441	5083-H113			INCIP						VAR	8.1 15	5.25	33510		LIT 243
442	5083-H113			0						VAR	8.1 15	5.25	33510		LIT 243
443	5083-H113					15 0/3				0.05	7.7 2.2	1.6	34400		LIT 243
446	5083-H113						-15	-30		0.05	7.7 2.2	1.6	34400		LIT 243
447	5083-H113						+4	+23		0.05	7.7 2.2	1.6	34400		LIT 243
451	5083-H113						-1	+37		0.10	7.5 5.0	0.4	34360		LIT 243
452	5083-H113						+2	+17		0.10	7.5 5.0	0.4	34360		LIT 243
423	5083-H113			0	0.31					0.05	7.6 2.3	1.3	34510		LIT 243
448	5083-H113						+5	+32		0.05	7.6 2.3	1.3	34510		LIT 243
389	5083-H113	CHEM CLEAN	ALCOA						X-SECT					BARNAC	ALCOA 47
382	5083-H113	MILL FINISH	ALCOA						X-SECT						ALCOA 48
390	5083-H113	CHEM CLEAN	ALCOA						X-SECT					BARNAC	ALCOA 47
384	5083-H113	MILL FINISH	ALCOA						X-SECT						ALCOA 49
391	5083-H113	CHEM CLEAN	ALCOA						X-SECT					BARNAC	ALCOA 47
386	5083-H113	MILL FINISH	ALCOA						X-SECT						ALCOA 66
392	5083-H113	CHEM CLEAN	ALCOA						X-SECT					BARNAC	ALCOA 47
388	5083-H113	MILL FINISH	ALCOA						X-SECT						ALCOA 67

TABLE II

[illegible]

TABLE 11

MISCELLANEOUS CORROSION INFORMATION

IDENT. NUMBER	ADDITIONAL SAMPLE DESCRIPTION			DEVICE ATTACK		STRESS CORROSION		CHANGE IN PROPERTY		METHOD USED TO MEASURE	SEA WATER EXPOSURE CONDITION								REFERENCE
				MAX DEPTH INCHES	FREQ PIT/ SQCM	TS KSI	EL F/N	TS %	EL %		FLOW FT/ SEC	PH	TEMP (C)	O2 ML/L	SAL PPM	CO2 PPM	CO3 PPM	MARINE GROWTH	
1290	5086-H112	ACET CLEAN	REY							MICROSC									LIT 4
1288	5086-H112	ACET CLEAN	REY							MICROSC									LIT 4
1291	5086-H112	ACET CLEAN	REY							MICROSC									LIT 4
1289	5086-H112	ACET CLEAN	REY					-3.1	-2.8	MICROSC									LIT 4
1292	5086-H112	ACET CLEAN	REY					-4.8	-6.0	MICROSC									LIT 4
1264	5086-H112			.032							0.05	7.4	2.3	1.6	34600				LIT 243
1265	5086-H112			0							VAR	8.1	16	5.25	33510				LIT 243
1280	5086-H112							0	-2		VAR	8.1	16	5.25	33510				LIT 243
1266	5086-H112			.117									4.5	5.18					LIT 3
1267	5086-H112			.064									4.5	5.18					LIT 3
1308	5086-H116	AS ROLLED	REY								2-3								LIT 5
1311	5086-H116	1 WK 100C	REY								2-3								LIT 5
1320	5086-H116	AS ROLLED	REY								2-3								LIT 5
1323	5086-H116	1 WK 100C	REY								2-3								LIT 5
1309	5086-H116	AS ROLLED	REY								2-3								LIT 5
1312	5086-H116	1 WK 100C	REY								2-3								LIT 5
1321	5086-H116	AS ROLLED	REY								2-3								LIT 5
1324	5086-H116	1 WK 100C	REY								2-3								LIT 5
1310	5086-H116	AS ROLLED	REY								2-3								LIT 5
1313	5086-H116	1 WK 100C	REY								2-3								LIT 5
1322	5086-H116	AS ROLLED	REY								2-3								LIT 5
1325	5086-H116	1 WK 100C	REY								2-3								LIT 5

TABLE II

				MISCELLANEOUS CORROSION INFORMATION							SEA WATER EXPOSURE CONDITION							
IDENT. NUMBER	ADDITIONAL SAMPLE DESCRIPTION			CREVICE ATTACK					CHANGE IN PROPERTY	METHOD USED TO MEASURE	FLOW	TEMP	O2	SAL	CO2	CO3	MARINE GROWTH	REFERENCE
	ALLOY AND TEMPER	METAL CONDITION	MFG	MAX DEPTH INCHES	FREQ PIT/ SQCM	CORROSION KSI F/N			TS %	EL %	PITS	FT/ SEC	PH	(C)	ML/L	PPM	PPM	PPM
1314	5086-H117	AS ROLLED	ALCOA									2-3						LIT 5
1317	5086-H117	1 WK 100C	ALCOA									2-3						LIT 5
1315	5086-H117	AS ROLLED	ALCOA									2-3						LIT 5
1318	5086-H117	1 WK 100C	ALCOA									2-3						LIT 5
1316	5086-H117	AS ROLLED	ALCOA									2-3						LIT 5
1319	5086-H117	1 WK 100C	ALCOA									2-3						LIT 5
1125	5086-H18																	LIT 6
1233	5086-H32			.015								0.05	7.4	2.3	1.6	34600		LIT 263
1234	5086-H32			.004														LIT 263
1237	5086-H32		DEY	0								0.10	7.5	5.0	0.4	34360		LIT 3
1240	5086-H32			0								VAR	8.1	16	5.25	33510		LIT 263
1271	5086-H32							-4	+41			VAR	8.1	16	5.25	33510		LIT 263
1238	5086-H32			.018								0.10	7.5	5.0	0.4	34360		LIT 263
1239	5086-H32			.018														LIT 263
1241	5086-H32			0								VAR	8.1	16	5.25	33510		LIT 263
1242	5086-H32			INCIP								VAR	8.1	16	5.25	33510		LIT 263
1268	5086-H32					15	0/3					0.10	7.5	5.0	0.4	34360		LIT 263
1269	5086-H32					23	0/3					0.10	7.5	5.0	0.4	34360		LIT 263
1270	5086-H32							-5	+33			0.10	7.5	5.0	0.4	34360		LIT 263
1294	5086-H32	MILL FINISH	ALCOA								X-SECT							ALCOA 48
1296	5086-H32	MILL FINISH	ALCOA								X-SECT							ALCOA 49
1298	5086-H32	MILL FINISH	ALCOA								X-SECT							ALCOA 66

TABLE II

		MISCELLANEOUS CORROSION INFORMATION																	
		ADDITIONAL SAMPLE DESCRIPTION		DEVICE		STRESS		CHANGE IN		METHOD		SEA WATER EXPOSURE CONDITION							
TENT. NUMBER	ALLOY AND TEMPER	METAL CONDITION	WEGP	MAX DEPTH INCHES	FREQ PIT/ SOCM	CORROSION KSI	F/N	TS %	EL %	USED TO MEASURE PITS	FLOW FT/ SEC	TEMP PH (C)	O2 ML/L	SAL PPM	CO2 PPM	CO3 PPM	MARINE GROWTH	REFERENCE	
1175	5086-H32	MACHINED	ALCOA									4,5	7,18	35160			NONE	LIT 7	
1177	5086-H32	MILL FINISH	ALCOA									4,5	7,18	35160			NONE	LIT 7	
1235	5086-H32			0								4,5	5,18					LIT 3	
1236	5086-H32			0														LIT 3	
1243	5086-H34			0							0,05	7,6	2,3	1,3	34510			LIT 263	
1244	5086-H34										0,05	7,6	2,3	1,3	34510			LIT 263	
1245	5086-H34			.050	<.02													LIT 263	
1272	5086-H34							-3	-23		0,05	7,6	2,3	1,3	34510			LIT 263	
1273	5086-H34							-1	-1		0,05	7,6	2,3	1,3	34510			LIT 263	
1246	5086-H34			0							0,05	7,4	2,3	1,6	34600			LIT 263	
1247	5086-H34			PERF														LIT 2	
1246	5086-H34			INCP	.02						0,10	7,5	5,0	0,4	34360			LIT 263	
1247	5086-H34			.038	.12													LIT 263	
1260	5086-H34			0	.02						VAR	8,1	16	5,25	33510			LIT 263	
1277	5086-H34							-5	+4		0,10	7,5	5,0	0,4	34360			LIT 263	
1279	5086-H34							0	-9		VAR	8,1	16	5,25	33510			LIT 263	
1248	5086-H34			.053							0,05	7,7	2,2	1,6	34400			LIT 263	
1249	5086-H34			.048	.06													LIT 263	
1258	5086-H34			.005							0,10	7,5	5,0	0,4	34360			LIT 263	
1259	5086-H34			.048	.02													LIT 263	
1261	5086-H34			INCP							VAR	8,1	16	5,25	33510			LIT 263	
1262	5086-H34			INCP							VAR	8,1	16	5,25	33510			LIT 263	

TABLE II

MISCELLANEOUS CORROSION INFORMATION

IDENT. NUMBER	ADDITIONAL SAMPLE DESCRIPTION			CREVICE		STRESS		CHANGE IN		METHOD USED TO MEASURE	SEA WATER EXPOSURE CONDITION								REFERENCE
				MAX DEPTH	FREQ PIT/ SQCM	CORROSION KSI	F/N	TS %	EL %		FLOW FT/ SEC	PH	TEMP (C)	O2 ML/L	SAL PPM	CO2 PPM	CO3 PPM	MARINE GROWTH	
1005	5456-H321	ACET CLEAN	DEY							MICROSC									BARNAC LIT 4
1004	5456-H321	ACET CLEAN	DEY							MICROSC									BARNAC LIT 4
1007	5456-H321	ACET CLEAN	DEY							MICROSC									BARNAC LIT 4
1005	5456-H321	ACET CLEAN	DEY					-1,2	-13	MICROSC									BARNAC LIT 4
1008	5456-H321	ACET CLEAN	DEY					-1,7	-8,3	MICROSC									BARNAC LIT 4
984	5456-H321							-10	-24		0,05	7,6	2,3	1,3	34510				LIT 263
1011	5456-H321			SLIGHT							0,05	7,6	2,3	1,3	34510				LIT 2
1012	5456-H321			.0330	0,96														LIT 263
988	5456-H321							-4	0		0,10	7,5	5,0	0,4	34360				LIT 263
990	5456-H321							-1	+9		VAR	8,1	15	5,25	33510				LIT 263
1019	5456-H321			.036	0,03						0,10	7,5	5,0	0,4	34360				LIT 263
1020	5456-H321			.018	0,03														LIT 263
1023	5456-H321			0	0,17						VAR	8,1	15	5,25	33510				LIT 263
985	5456-H321							-1	+22		0,05	7,7	2,2	1,6	34400				LIT 263
989	5456-H321							-1	+9		0,10	7,5	5,0	0,4	34360				LIT 263
1013	5456-H321			.050							0,05	7,7	2,2	1,6	34400				LIT 263
1014	5456-H321			.032	0,11														LIT 263
1021	5456-H321			.044	0,02						0,10	7,5	5,0	0,4	34360				LIT 263
1022	5456-H321			.032	0,03														LIT 263
1024	5456-H321			0							VAR	8,1	15	5,25	33510				LIT 263
1025	5456-H321			.008							VAR	8,1	15	5,25	33510				LIT 263
986	5456-H321							-21	-30		0,05	7,6	2,3	1,3	34510				LIT 263

TABLE II

IDENT. NUMBER		ADDITIONAL SAMPLE DESCRIPTION		MISCELLANEOUS CORROSION INFORMATION								SEA WATER EXPOSURE CONDITION								MARINE GROWTH	REFERENCE
				CRACK		STRESS		CHANGE IN		METHOD USED TO MEASURE PITS											
				ATTACK	FREQ	CORROSION	PROPERTY														
				MAX DEPTH INCHES	PIT/ SQCM	TS EL %		FLOW FT/ SEC	TEMP PH (C)		O2 ML/L	SAL PPM	CO2 PPM	CO3 PPM							
		ALLOY AND TEMPER	METAL CONDITION	MPGR																	
1389	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1396	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1403	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1410	5456-H321	MILL FINISH	ALCOA						X-SECT										ALCOA 49		
1411	5456-H321	MILL FINISH	ALCOA						X-SECT										ALCOA 49		
926	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1393	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1390	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1397	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1404	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1413	5456-H321	MILL FINISH	ALCOA						X-SECT										ALCOA 66		
1414	5456-H321	MILL FINISH	ALCOA						X-SECT										ALCOA 66		
927	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1384	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1391	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1398	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1405	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1416	5456-H321	MILL FINISH	ALCOA						X-SECT										ALCOA 67		
1417	5456-H321	MILL FINISH	ALCOA						X-SECT										ALCOA 67		
921	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
928	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		
1395	5456-H321	CHEM CLEAN	ALCOA						X-SECT									BARNAC	ALCOA 47		

TABLE II

				MISCELLANEOUS CORROSION INFORMATION							SEA WATER EXPOSURE CONDITION								
IDENT. NUMBER	ADDITIONAL SAMPLE DESCRIPTION			CREVICE ATTACK	STRESS		CHANGE IN PROPERTY		METHOD USED TO MEASURE	FLOW FT/ SEC	TEMP PH (C)	O2 ML/L	SAL PPM	CO2 PPM	CO3 PPM	MARINE GROWTH	REFERENCE		
	ALLOY AND TEMPER	METAL CONDITION	MFGR	MAX DEPTH INCHES	FREQ PIT/ SOCM	CORROSION KSI F/N	TS %	EL %	PITS										
1392	5456-H321	CHEM CLEAN	ALCOA						X-SECT								BARNAC ALCOA 47		
1399	5456-H321	CHEM CLEAN	ALCOA						X-SECT								BARNAC ALCOA 47		
922	5456-H321																ALCOA 47		
929	5456-H321	CHEM CLEAN	ALCOA						PIT GAGE								BARNAC ALCOA 47		
1386	5456-H321	CHEM CLEAN	ALCOA						PIT GAGE								BARNAC ALCOA 47		
1393	5456-H321	CHEM CLEAN	ALCOA						PIT GAGE								BARNAC ALCOA 47		
1400	5456-H321	CHEM CLEAN	ALCOA						PIT GAGE								BARNAC ALCOA 47		
1379	5456-H321	MACHINED	ALCOA			30	0/1									NONE	ALCOA 17		
938	5456-H323	MILL FINISH	ALCOA						X-SECT								ALCOA 39		
944	5456-H323	MILL FINISH	ALCOA						X-SECT								ALCOA 39		
939	5456-H323	MILL FINISH	ALCOA					-3	X-SECT								ALCOA 38		
945	5456-H323	MILL FINISH	ALCOA					-1	X-SECT								ALCOA 38		
940	5456-H323	MILL FINISH	ALCOA						X-SECT								ALCOA 38		
946	5456-H323	MILL FINISH	ALCOA						X-SECT								ALCOA 38		
947	5456-H323	MILL FINISH	ALCOA						X-SECT								ALCOA 38		
991	5456-H34							-6	-34	0.05	7.6	2.3	1.3	34510			LIT 263		
1026	5456-H34			0						0.05	7.6	2.3	1.3	34510			LIT 263		
995	5456-H34							-14	+170	0.10	7.5	5.0	0.4	34360			LIT 263		
1032	5456-H34			SEVERE						0.05	7.5	5.0	0.4	34360			LIT 263		
992	5456-H34							-14	-80	0.05	7.7	2.2	1.6	34600			LIT 263		
996	5456-H34	ANODIZED						-11	+196	0.05	7.7	2.2	1.6	34400			LIT 263		
1027	5456-H34			0						0.05	7.7	2.2	1.6	34400			LIT 263		

TABLE II

MISCELLANEOUS CORROSION INFORMATION																			
ADDITIONAL SAMPLE DESCRIPTION				CREVICE		STRESS		CHANGE IN		METHOD USED TO MEASURE	SEA WATER EXPOSURE CONDITION								
IDENT. NUMBER	ALLOY AND TEMPER	METAL CONDITION	HFGP	ATTACK MAX DEPTH INCHES	FREQ PIT/ SOCM	CORROSION KSI	F/N	TS %	EL %		FLOW FT/ SEC	TEMP PH (C)	O2 ML/L	SAL PPM	CO2 PPM	CO3 PPM	MARINE GROWTH	REFERENCE	
910	6051-T4		ALCAN															LIT 9	
914	6051-T4		ALCAN															LIT 9	
829	6051-T4		ALCAN															LIT 9	
833	6051-T4		ALCAN															LIT 9	
899	6051-T4		ALCAN															LIT 9	
903	6051-T4		ALCAN															LIT 9	
830	6051-T4		ALCAN															LIT 9	
834	6051-T4		ALCAN															LIT 9	
900	6051-T4		ALCAN															LIT 9	
904	6051-T4		ALCAN															LIT 9	
831	6051-T4		ALCAN															LIT 9	
835	6051-T4		ALCAN															LIT 9	
901	6051-T4		ALCAN															LIT 9	
905	6051-T4		ALCAN															LIT 9	
832	6051-T4		ALCAN															LIT 9	
836	6051-T4		ALCAN															LIT 9	
902	6051-T4		ALCAN															LIT 9	
906	6051-T4		ALCAN															LIT 9	
889	6051-T4	MILL FINISH	ARI					-15	-67									ALCOA 8	
885	6051-T4	MILL FINISH	ARI				17	-16										ALCOA 70	
886	6051-T4	MILL FINISH	ARI					-16										ALCOA 70	
890	6051-T4	MILL FINISH	ARI					-7	-47									ALCOA 8	

TABLE II

MISCELLANEOUS CORROSION INFORMATION																	
ADDITIONAL SAMPLE DESCRIPTION				CREVICE ATTACK		STRESS CORROSION		CHANGE IN PROPERTY		METHOD USED TO		SEA WATER EXPOSURE CONDITION					
IDENT. NUMBER	ALLOY AND TEMPER	METAL CONDITION	MFG	MAX	FREQ	CORROSION		PROPERTY		USED TO MEASURE	FLOW	TEMP	O2	SAL	CO2	CO3	MARINE GROWTH
				DEPTH	PIT/	T8	EL	TS	EL								
				INCHES	SQCM	KSI	F/N	%	%	PITS	FT/ SEC	(C)					REFERENCE
803	6053-T6		ALCAN														LIT 9
766	6053-T6		ALCAN														LIT 9
783	6053-T6		ALCAN														LIT 9
787	6053-T6		ALCAN														LIT 9
804	6053-T6		ALCAN														LIT 9
784	6053-T6		ALCAN														LIT 9
805	6053-T6		ALCAN														LIT 9
774	6053-T6		ALCAN														LIT 9
777	6053-T6		ALCAN														LIT 9
795	6053-T6		ALCAN														LIT 9
799	6053-T6		ALCAN														LIT 9
775	6053-T6		ALCAN														LIT 9
778	6053-T6		ALCAN														LIT 9
796	6053-T6		ALCAN														LIT 9
800	6053-T6		ALCAN														LIT 9
776	6053-T6		ALCAN														LIT 9
779	6053-T6		ALCAN														LIT 9
797	6053-T6		ALCAN														LIT 9
801	6053-T6		ALCAN														LIT 9
780	6053-T6		ALCAN														LIT 9
798	6053-T6		ALCAN														LIT 9
1450	6053-T6		ALCOA														ALCOA 16

TABLE II

MISCELLANEOUS CORROSION INFORMATION																			
ADDITIONAL SAMPLE DESCRIPTION				CREVICE		STRESS		CHANGE IN		METHOD USED TO MEASURE	SEA WATER EXPOSURE CONDITION								
IDENT. NUMBER	ALLOY AND TEMPER	METAL CONDITION	WGR	ATTACK MAX DEPTH INCHES	FREQ PIT/ SQCM	CORROSION KSI F/N	TS %	FL %	FLOW FT/ SEC		TEMP PH (C)	O2 ML/L	SAL PPM	CO2 PPM	CO3 PPM	MARINE GROWTH	REFERENCE		
1451	6053-T6		ALCOA					+2										ALCOA 16	
1453	6053-T6		ALCOA							FLOW								ALCOA 16	
1452	6053-T6		ALCOA	.0030						FLOW								ALCOA 16	
1462	6053-T6		ALCOA					-7	-59									ALCOA 8	
1463	6053-T6		ALCOA			26	0/2	-6	-59									ALCOA 8	
1456	6053-T6		ALCOA			23	0/2	-8										ALCOA 70	
1457	6053-T6		ALCOA					-6										ALCOA 70	
1464	6053-T6		ALCOA					-5	-39									ALCOA 8	
1465	6053-T6		ALCOA			26	0/2	-4	-27									ALCOA 8	
1466	6053-T6		ALCOA					-3	-6	X-SECT								ALCOA 8	
1467	6053-T6		ALCOA				0/2											ALCOA 8	
1446	6053-T6		ALCOA					-2										ALCOA 16	
1447	6053-T6		ALCOA					-1										ALCOA 16	
1438	6053-T6		ALCOA					-3										ALCOA 16	
1439	6053-T6		ALCOA					-4										ALCOA 16	
1448	6053-T6		ALCOA					-1										ALCOA 16	
1449	6053-T6		ALCOA					-1										ALCOA 16	
1444	6053-T6		ALCOA					+4										ALCOA 16	
1445	6053-T6		ALCOA					-11										ALCOA 16	
1470	6061-			0						VAR	8,1	16	5,25	33510				LIT 263	
1471	6061-			.011						VAR	8,1	16	5,25	33510				LIT 263	
1468	6061-			PERF						0,10	7,5	5,0	0,4	14360				LIT 263	

TABLE II

MISCELLANEOUS CORROSION INFORMATION																		
ADDITIONAL SAMPLE DESCRIPTION				CREVICE ATTACK		STRESS CORROSION		CHANGE IN PROPERTY		METHOD USED TO	SEA WATER EXPOSURE CONDITION							
IDENT. NUMBER	ALLOY AND TEMPER	METAL CONDITION	MFGR	MAX	FREQ	CORROSION	TS	EL	MEASURE	PITS	FLOW	TEMP	O2	SAL	CO2	CO3	MARINE	REFERENCE
				DEPTH	PIT/													
653	6061-T6		ALCAN															LIT 9
654	6061-T6		ALCAN															LIT 9
655	6061-T6		ALCAN				-0.2	-1.5										LIT 9
656	6061-T6		ALCAN				-1.2	-7.0										LIT 9
1521	6061-T6		ALCOA				-12		X-SECT		0.50							ALCOA 15
649	6061-T6		ALCAN															LIT 9
693	6061-T6		ALCAN															LIT 9
697	6061-T6		ALCAN															LIT 9
701	6061-T6		ALCAN															LIT 9
650	6061-T6		ALCAN															LIT 9
694	6061-T6		ALCAN															LIT 9
698	6061-T6		ALCAN															LIT 9
702	6061-T6		ALCAN															LIT 9
651	6061-T6		ALCAN															LIT 9
695	6061-T6		ALCAN															LIT 9
699	6061-T6		ALCAN															LIT 9
703	6061-T6		ALCAN															LIT 9
692	6061-T6		ALCAN															LIT 9
696	6061-T6		ALCAN															LIT 9
700	6061-T6		ALCAN															LIT 9
704	6061-T6		ALCAN															LIT 9
1522	6061-T6		ALCOA				-5				0.50							ALCOA 14

TABLE II

MISCELLANEOUS CORROSION INFORMATION																			
ADDITIONAL SAMPLE DESCRIPTION				CREVICE	ATTACK		STRESS		CHANGE IN		METHOD	SEA WATER EXPOSURE CONDITION							
IDENT. NUMBER	ALLOY AND TEMPER	METAL CONDITION	MPGR	MAX	FREQ	CORROSION	PROPERTY		USED TO	FLOW	TEMP	O2	SAL	CO2	CO3	MARINE	GROWTH	REFERENCE	
				DEPTH	PIT/		T8	EL	MEASURE										FT/
				INCHES	80CM	KSI	F/N	%	%	PITS	SEC								
678	6061-T6		ALCAN															LIT 9	
733	6061-T6		ALCAN															LIT 9	
643	6061-T6		ALCAN															LIT 9	
675	6061-T6		ALCAN															LIT 9	
679	6061-T6		ALCAN															LIT 9	
734	6061-T6		ALCAN															LIT 9	
644	6061-T6		ALCAN															LIT 9	
676	6061-T6		ALCAN															LIT 9	
680	6061-T6		ALCAN															LIT 9	
735	6061-T6		ALCAN															LIT 9	
1472	6061-T6										0.05	7.6	2.3	1.3	34510			LIT 2	
1473	6061-T6			.010							0.05	7.6	2.3	1.3	34510			LIT 243	
1474	6061-T6				.43													LIT 2	
1475	6061-T6			.032	.56													LIT 2	
1476	6061-T6	AS WELDED		0							0.05	7.6	2.3	1.3	34510			LIT 243	
1477	6061-T6	H.T. TO T6		0							0.05	7.6	2.3	1.3	34510			LIT 243	
1478	6061-T6			.021							0.05	7.6	2.3	1.3	34510			LIT 243	
1479	6061-T6										0.05	7.6	2.3	1.3	34510			LIT 243	
1480	6061-T6			0							0.05	7.6	2.3	1.3	34510			LIT 243	
1481	6061-T6			.032														LIT 243	
1511	6061-T6							-7	-58		0.05	7.6	2.3	1.3	34510			LIT 243	
1512	6061-T6							-43	-85		0.05	7.6	2.3	1.3	34510			LIT 243	

TABLE II

				MISCELLANEOUS CORROSION INFORMATION										SEA WATER EXPOSURE CONDITION						
ADDITIONAL SAMPLE DESCRIPTION				CREVICE	STRESS				CHANGE IN		METHOD									
IDENT. NUMBER	ALLOY AND TENDER	METAL CONDITION	MEGR	ATTACK	FREQ	CORROSION		TS	EL	MEASURE	USED TO	FLOW	PH	TEMP (C)	O2 ML/L	SAL PPM	CO2 PPM	CO3 PPM	MARINE GROWTH	REFERENCE
				DEPTH INCHES	PIT/ SOCM	KSI	F/N													
1513	6061-T6							-100	-100			0,05	7,6	2,3	1,3	34510				LIT 263
1482	6061-T6			0								0,05	7,6	2,3	1,3	34510				LIT 263
1483	6061-T6			.018																LIT 263
1497	6061-T6			.042	.34							0,10	7,5	5,0	0,4	34360				
1498	6061-T6			0								0,10	7,5	5,0	0,4	34360				LIT 263
1499	6061-T6			INCIP	.68															LIT 263
1502	6061-T6			.008								VAR	8,1	16	5,25	33510				LIT 263
1507	6061-T6					12	0/3					0,10	7,5	5,0	0,4	34360				LIT 263
1508	6061-T6					30	0/3					0,10	7,5	5,0	0,4	34360				LIT 263
1517	6061-T6							-5	-42			0,10	7,5	5,0	0,4	34360				LIT 263
1518	6061-T6							-2	-57			0,10	7,5	5,0	0,4	34360				LIT 263
1520	6061-T6							0	-9			VAR	8,1	16	5,25	33510				LIT 263
1484	6061-T6			.055	.11							0,05	7,7	2,2	1,6	34400				LIT 263
1485	6061-T6			.051	.20															LIT 263
1500	6061-T6			.066	.43							0,10	7,5	5,0	0,4	34360				LIT 263
1501	6061-T6			.060	.75															LIT 263
1503	6061-T6			0								VAR	8,1	16	5,25	33510				LIT 263
1505	6061-T6					12	0/3					0,05	7,7	2,2	1,6	34400				LIT 263
1506	6061-T6					30	0/3					0,05	7,7	2,2	1,6	34400				LIT 263
1509	6061-T6					12	0/3					0,10	7,5	5,0	0,4	34360				LIT 263
1510	6061-T6					30	0/3					0,10	7,5	5,0	0,4	34360				LIT 263
1514	6061-T6							-11	-58			0,05	7,7	2,2	1,6	34400				LIT 263

APPENDIX III
SERVICE HISTORIES

<u>Table No.</u>	<u>Caption</u>
I	S. S. Alcoa Clipper
II	OSW Test Bed Plant, Freeport, Texas Heat Reject Exchanger E-21
III	Surface Condenser, Baltimore, MD
IV	Surface Condenser, Freeport, TX
V	Surface Condenser, Texas City, TX
VI	SS Alcoa SeaProbe
VII	Lube Oil Cooler, Port Arthur, TX
VIII	Ammonia Condenser, Lake Charles, LA
IX	Baltic Sea Water at Studsvik AB Atomenergi Research Station

TABLE I
S. S. ALCOA CLIPPER
SHIPBOARD HEAT EXCHANGER - 3/4" OD x .064" WALL
ALCLAD (INSIDE 7072) 3003-H14

Original Cladding Thickness (1)		Shell	Tubes	Years	Cladding Consumed %	Maximum Remaining Cladding Thickness	Maximum Penetration of Core - Inch
%	Inch					Inch	
16	.0104	Lube Oil	Seawater	1	-	.0100	Nondetected
16	.0104	Lube Oil	Seawater	1	5	----	Nondetected
16	.0104	Lube Oil	Seawater	2.7	10	----	Nondetected
16	.0104	Lube Oil	Seawater	4	-	.0100	Nondetected
16	.0104	Lube Oil	Seawater	4	-	.0070	Nondetected
16	.0104	Lube Oil	Seawater	5	50	.0051	Nondetected
16	.0104	Lube Oil	Seawater	7	53	.0107	Nondetected
8	.0052	Lube Oil	Seawater	8	90	.0050	.022
16	.0104	Lube Oil	Seawater	9	50	.0103	Nondetected
16	.0104	Lube Oil	Seawater	10	76	.0102	Nondetected

Note: (1) Nominal thickness: % is of tube wall thickness.

Table II

OSW - TEST BED PLANT, FREEPORT, TEXAS
 HEAT REJECT EXCHANGER E-21
RAW SEA WATER AT 110°F IN TUBES

<u>Tube Alloy</u>	<u>Max. Pit Depth Inch</u>	<u>Avg. Pit Depth Inch</u>	<u>Pits/In²</u>	<u>Remarks</u>
<u>Original Tubes After 6 Months in Test</u>				
3003	0	0	0	Excellent condition
5052	0	0	0	Excellent condition
6063	0	0	0	Excellent condition
5050	0	0	0	Excellent condition
<u>Replacement Tubes After 6 Months in Test</u>				
3003	0	0	0	Excellent condition
5052	0.049	0.030	0.01	Pits and perforation under barnacle shells
6063	0.049	0.030	0.01	Pits and perforation under barnacle shells
5050	0.049	0.030	0.01	Pits and perforation under barnacle shells
<u>Original Tubes That Remained in Test for 12 Months</u>				
3003	0	0	0	Excellent condition
5052	0.020	--	--	One deep pit
6063	0	0	0	Excellent condition
5050	0.049	0.020	0.01	Pits and perforation under barnacle shells

Source: Desalination Materials Manual prepared by Dow Chemical Company for OSW, 1975 May.
 On page 4-108 it is reported pitting developed during the final six months of testing.

TABLE III

BALTIMORE 30, MARYLAND
CONDENSER WITH 3/4" OD x .065" WALL ALCLAD (INSIDE 7072) 3003-H14
TUBES

<u>Shell</u>	<u>Service</u>		<u>Years</u>	<u>Cladding Consumed %</u>	<u>Maximum Measured Penetration Inches</u>
	<u>Tube</u>				
Steam	Baltimore Harbor Water		2	16	.006
			4	11	.008
			6	29	.009
			8	66	.009

TABLE IV

FREEPORT TEXAS, CONDENSER, ALCLAD (INSIDE 7072) 3003 AND
NONCLAD 3003 TUBES 3/4" OD x .065" WALL

<u>Shell</u>	<u>Service Tubes</u>	<u>Years</u>	<u>Tube Alloy</u>	<u>Maximum Measured Penetration Inch</u>
Steam	Seawater	2	Alc. 3003	Cladding Not Perforated
Steam	Seawater	2	3003	.0038

TABLE V

TEXAS CITY, TEXAS
 CONDENSER - ALCLAD (INSIDE 7072) 3003 AND NONCLAD 3003 TUBES
 3/4" OD x .065" WALL

<u>Shell</u>	<u>Service Tubes</u>	<u>Years</u>	<u>Tube Alloy</u>	<u>Remarks</u>
Steam	Seawater	1 1/4	Alc. 3003	Scattered pits limited to cladding
			3003	Scattered small pits
		2 1/2	Alc. 3003	Broad shallow pits - cladding protecting
			3003	Scattered small pits deeper than at 1 1/4 years

TABLE VI

ALUMINUM DESALINATION UNIT ABOARD THE ALCOA SEA PROBE
CONDENSER AND EVAPORATOR TUBED WITH 5/8" OD x .065" WALL ALCLAD (BOTH SIDES 7072)
3003-H14 TUBES

Condenser

Shell 5454-H34 aluminum
Tubes 5/8" OD x .065" wall alclad (both sides 7072) 3003-H14
Water box - steel coated internally with Debecate
Service
Raw sea water in tubes (small barnacles formed)
Condensate in shell
7 years - No problems due to corrosion

Evaporator

Shell 5454-H34 aluminum
Tubes 5/8" OD x .065" wall alclad (both sides 7072) 3003-H14
Tube sheet - Alclad (both sides 7072) 6061-T6, 1" thick
Water box - steel coated internally with Debecate
Service
Engine jacket water in tubes
Hot sea water evaporating in shell
7 years - no corrosion problem

TABLE VII

LUBE OIL COOLER - PORT ARTHUR, TEXAS

Tubes - Alclad (Inside 7072) 3003-H14

Coolant - Brackish Water in Tubes

Service - After 5-6 years about 50% of cladding consumed, but no penetration of the 3003 core. The cooler remained in service.

TABLE VIII

AMMONIA CONDENSER - LAKE CHARLES, LA

Tubes - Alclad (Inside 7072) 3003-H14

Coolant - Brackish water in tubes

Service - No examination or trouble reported in 4 years. Condenser
remained in service.

TABLE IX

ALCLAD ALUMINUM TUBES IN BALTIC SEA WATER AT STUDSVIK, AB ATOMENERGI
RESEARCH STATION

<u>Composition of Baltic Sea Water at Studsvik</u>		<u>Tube Alloys</u>	<u>Remarks</u>
Chloride	3970 mg/l	SIS 4212, Al Si 1 Mg (6351)	10% cladding removed by erosion - corrosion. Penetration no deeper than 140 μ m (.0055")
Sulfate	550 mg/l	Clad inside with Al-Zn 1 (7072)	
Calcium	72 mg/l	SIS 4212, Al Si 1 Mg (6351)	50-60% cladding removed by erosion-corrosion. Penetration no deeper than 200 μ m (.0079")
Sodium	2450 mg/l	Clad inside with Al 99.99	
Magnesium	79 mg/l	<u>Time</u> 10,000 hrs. (13.7 mos.)	
Oxygen	8-14 mg/l		
Hydrogen Sulfide	< 0.1 mg/l		
Ammonia	Not Detected	<u>Velocity</u> 2.5 m/sec (8.2 ft/sec.)	
pH	7.8		
		<u>Temperature</u> 50°C (122°F)	

Concluded that at 50°C (122°F) velocity of 2.5 m/sec (8.2 ft/sec) too high for aluminum tubes tested. Further stated that heat exchangers containing aluminum tubes clad inside with Al Zn 1 (7072) have operated problem-free in "Studsvik-water" at a maximum temperature of 20°C (68°F) and water velocities of less than 2.5 m/sec (8.2 ft/sec) for more than 15 years.

Ref; "Corrosion Tests in Baltic Seawater on Heat Exchanger Tubes of Various Metallic Materials", Henrikson and Knutsson.

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