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### The Petroleum Industry in Alaska

Perhaps the most important date in all of Alaska's colorful history is July 19, 1957. It was on this date that the Richfield Oil Corporation struck oil in the Swanson River area on the Kenai Peninsula. The discovery well indicated a potential of more than 900 barrels per day on its initial short test.

The Swanson River discovery did not cause an immediate rush of drilling operations in Alaska because meticulous geological and other activity must precede drilling. Actually only three new holes were drilled in Alaska in 1958 and they were all dry, however the Swanson River strike did start a leasing boom reminiscent of the gold rush days of the past. The great excitement generated by the oil strike on the Kenai Peninsula can best be measured by the fact that at the time of the discovery in 1957 there were about 3,400 oil and gas leases outstanding in Alaska embracing about 6.5 million acres, and within a few months after the strike there were over 9,000 leases covering over 19 million acres. By the middle of July, 1959, two years after the discovery, over 15,000 leases were in force, covering in excess of 32 million acres.

To properly evaluate the significance of the discovery and ultimate production of petroleum to Alaska's economy we need only compare the value of today's oil and natural gas production in Alaska with the value of Alaska's gold production during the peak year of 1940. Gold, which many people consider as synonymous with Alaska, for many years provided a major stimulus to Alaska's economy. Yet in 1940, the peak year of gold production, the value of Alaska's gold production was only \$26,459,000 which is almost \$7 million less than the 1963 value of petroleum and natural gas production within the state.

The data presented in Table I manifests an astonishing story. In 1958, there was no petroleum production in Alaska, however in 1963, just five years later, the pro-

duction of oil and natural gas accounted for 77 percent of the annual value of production of Alaska's major minerals.

Alaska has already benefited greatly from the petroleum industry activity within the state. In addition to the jobs created by this new industry, the state economy has been greatly stimulated by the petroleum industry's large annual expenditures for exploration, production and development. See Table II. Industry expenditures in Alaska exceeded \$65 million in 1963. Included in these expenditures are revenues paid to Alaska directly or indirectly in the form of bonus bids, oil and gas rentals and royalties.

#### Petroleum Industry Revenue to Alaska

Revenue to the state of Alaska from the petroleum industry has reached a total of almost 80 million dollars in the past 5 years. See Table III. Almost \$50 million of this revenue is a result of bonus bids from competitively leased lands. In the year 1961, over \$22 million accrued to the state of Alaska from these bonus bids.

Any doubt concerning the vital importance of the petroleum industry to the welfare of Alaska can be quickly dispelled by relating the petroleum industry's total revenue payments to the state of Alaska for the past three years to the total general fund revenues received during those same years from all other sources. It is obvious from the comparison that the continued presence of the oil industry in Alaska is of prime importance to the state and its citizens.

A shift is taking place in the source of revenues flowing to the state of Alaska from the petroleum industry. Revenue from bonus bids on competitive leases will continue to decline sharply as they have in recent years and revenue receipts from oil and gas rentals and royalties will continue to expand. Until the two oil fields discovered in Cook Inlet, which are on state leased lands, begin to produce, the only oil production royalties received by the state will continue to come from the Swanson River

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oil field production. All of these production royalties come from Federal leases on land within the Kenai Moose Range, however the state of Alaska benefits directly since 90 percent of the oil royalties paid to the Federal government from this production are allotted back to Alaska. Beginning with oil royalties of \$12,678 in 1959, Alaska has received a cumulative total of \$8,108,996 from Swanson River production royalties in the last 5 years.

#### Decades of Frustration

The petroleum industry is not new to Alaska, actually it has been in the state for many decades. Oilmen first ventured into Alaska to explore for petroleum 62 years ago, however the first 53 years of the history of the petroleum industry in Alaska is a study in frustration.

The first oil well in Alaska was drilled by the Alaska Oil Company in 1902. But the well, which was located at Cold Bay on the west shore of the Cook Inlet, was dry. Several other wells drilled by the Alaska Oil Company also were abandoned after cave-ins.

The Chilkot Oil Company, which began operations about the same time as the Alaska Oil Company, discovered oil at the Katalla Field near Cordova. See enclosed map. Petroleum was first produced in Alaska when this small Katalla field was brought into production in 1902. During the next 30 years, 36 shallow wells were drilled in the Katalla area of which only 18 produced oil in commercial quantities. The most productive well produced 20 barrels of crude oil per day.

The Chilkot Company built and began operating a primitive refinery in 1912 in order to process locally the crude oil it was producing. The refinery was destroyed by fire in 1933. As it was not considered economically worthwhile to rebuild, the whole operation was abandoned. The Katalla Field produced only about 154,000 barrels of oil in over 30 years of operation. Current production from the Swanson River Field now exceeds that figure every five days.

By July 19, 1957, the time of the Swanson River oil strike, over 100 wells had been drilled by private companies in Alaska. During this period, encompassing more than a half century, very few productive wells were found and none of them ever had any significant commercial value.

#### Naval Petroleum Reserve No. 4

Except for the Chilkot Company operation at Katalla

the only measurable discovery of oil before the 1957 Swanson River strike occurred in the petroleum reserve at Point Barrow. This reserve, known as Naval Petroleum Reserve No. 4, is an area of great petroleum potential covering approximately 37,000 square miles located north of the Brooks Range divide. See enclosed map. The Reserve was established by President Harding in 1923 for the purpose of making a large supply of petroleum available to the U.S. Navy for future use. During World War II there was great concern that a shortage might develop through a possible interruption of the U.S. petroleum supply from foreign sources. Consequently, an exploration program was instituted in Naval Petroleum Reserve No. 4 by the U.S. Navy.

The Navy spent \$45,000,000 from 1945 to 1953 to drill 75 wells in the Reserve and as a result discovered the Umiat Oil Field, with estimated reserves of 125 million barrels, the Gubik Gas Field, and five smaller oil and gas fields, or important prospects. From the information obtained by the Navy's exploration program there is little doubt that extensive reserves of both oil and gas are present in the area north of the Brooks Range.

On June 29, 1964, President Johnson signed into law a bill which would permit the Navy to produce and sell crude oil from the Umiat Field of Naval Petroleum Reserve No. 4. The purpose of this bill is to provide lower-cost fuel to be used by the oil exploration companies in their operations on the north slope of the Brooks Range.

It is hoped that the lower fuel costs will stimulate the exploration, discovery, and production of oil in the area thereby enhancing Alaska's economic well-being through increased tax revenues, income, and employment.

#### Swanson River Oil Field

It has been unofficially estimated that the Swanson River oil field contains an ultimate recoverable oil reserve of 200 million barrels. From the time of its discovery in 1957 to August 1, 1964 the field has produced 34.5

Table I

ANNUAL VALUE OF PRODUCTION  
OF SELECTED MAJOR MINERALS IN ALASKA

1958-1963

(Thousands of dollars)

Year	Gold	Mercury	Coal	Oil & Gas	Total	Percent Oil & Gas
1958	6,525	774	6,931	—	14,230	0%
1959	6,262	851	6,869	311	14,293	2%
1960	5,887	940	6,318	1,496	14,641	10%
1961	3,998	816	5,868	17,776	28,458	62%
1962	5,784	711	6,409	31,657	44,561	71%
1963	3,465	75	6,400	33,453	43,393	77%

million barrels of oil. During 1962 the field produced for the first time at the capacity of an 8 inch pipeline 22 miles long which delivered oil to the marine terminal at Nikiski on Cook Inlet. In 1963, 10.7 million barrels of oil were produced at an average rate of 29,424 barrels per day from 55 wells. See Table IV. The average daily production of each well was about 535 barrels.

The Swanson River Field has achieved a distinction reserved for only a few elite oil fields in the United States. In 1962 only 26 of the many hundreds of oil fields in the United States produced more than 10 million barrels of oil, but none of these fields produced as much on a barrel per day per well basis as did the Swanson River Field.

#### Cook Inlet Oil Discoveries

The Cook Inlet area is now regarded as one of the most important offshore oil production sites in the world. In 1963, oil of commercial importance was discovered near Middle Ground Shoal in the center of Cook Inlet by the Shell Oil Company with Standard Oil Company of California and Richfield Oil Company as partners. The newly discovered field has produced on test at the rate of 745 barrels per day. After testing the well was plugged and capped until the facilities needed for the production of oil could be constructed and put into operation. Two other wells in Cook Inlet neared completion before the threat of ice stopped activity for the winter.

In August 1964 Pan American Petroleum Corporation with its partners, Phillips Petroleum, Sinclair Oil and Gas, and Skelly Oil Company discovered a second oil field in Cook Inlet. Initial tests at the rate of 957 barrels per day indicate that this third oil field discovery may be the largest oil strike ever made in Alaska. The new well, located in the Foreland area of Cook Inlet southwest of Anchorage, is over twenty miles away from the Swanson River Field and about twenty miles from the oil discovery made by Shell Oil Company last year at Middle Ground Shoal, also in the Cook Inlet.

The development of the offshore fields in the Cook Inlet will not take place until drilling platforms which will be able to withstand battering by tidal borne ice flows during the winter months, can be constructed and put into place. In addition, handling facilities, such as a trans-inlet pipeline to the Nikiski loading terminal, will have to be constructed before Cook Inlet oil can be produced.

Oil experts report that the Cook Inlet area offers the most difficult drilling conditions that oil companies have ever encountered. The eight-knot currents in the inlet, along with 30 foot tides which change direction four times a day, and thick winter ice greatly complicate drilling operations. However, a drilling platform is now being built at a cost of \$5.5 million from which 20 or more wells can be drilled directionally to selected targets in

Table II

SUMMARY OF PETROLEUM INDUSTRY ACTIVITY IN ALASKA 1959 - 1963					
	1959	1960	1961	1962	1963
Drilling Permits Approved	16	30	55	38	25
Exploratory Wells Spudded	8	10	25	31	16
Development Wells Spudded	8	16	29	10	9
Wells Completed (Oil)	3	13	27	7	8
Wells Completed (Gas)	3	3	5	5	4
Wells Abandoned	4	9	19	21	15
Footage Drilled, Exploratory	75,705	93,749	197,499	290,976	135,248
Footage Drilled, Development	62,197	166,592	302,989	78,619	80,337
Total Footage Drilled	137,902	260,341	500,488	369,595	215,585
Average No. Active Rotary Rigs/wk	5	7	9	10	7
Average Daily Oil Production	510	1,529	17,333	28,107	29,424
Geologic Field Party Months	129	57.5	57.6	43	47
Seismic Crew Months	92.0	40.0	73.4	86.23	113
Gravity Crew Months	7.5	4.9	14.5	9.5	10
Estimated Industry Expenditures*	\$30,654,000	\$37,805,000	\$42,405,000	\$65,500,000	\$65,859,000

\*Estimated total industry expenditures for exploration, production and development but excluding the cost of marketing and sales activity.

Source: State of Alaska, Department of Natural Resources, Division of Mines and Minerals.

Table III

REVENUE TO THE STATE OF ALASKA FROM THE GAS AND PETROLEUM INDUSTRY						
1959 - 1963						
Year	Estimated Revenue from Leases of State Land			Federal Revenue Payments to the State of Alaska		
	Bonus Bids from Competitive Leases	Rental from Non-Competitive Leases	Rental from Competitive Leases	Oil and Gas Rental	Oil and Gas Royalty	Total
1959	\$4,021,031			\$4,260,322	\$12,678	\$8,294,031
1960	422,980			2,626,829	97,171	3,146,980
1961	22,415,940	\$142,015		1,828,868	1,640,132	26,026,955
1962	15,719,234	391,332	592,075	4,646,316	2,499,026	23,847,983
1963	7,191,390	413,404	746,565	4,491,987	3,859,989	16,703,335
TOTAL	49,770,575	946,751(1)	1,338,640	17,854,322	8,108,996	78,019,284

(1) Includes some transferred Federal leases at an annual rental of 25c per acre.

the 550-foot-thick oil formation discovered at the Middle Ground Shoal location. Best estimates indicate that it will be 1966 before any oil can be produced and transported to market from the Middle Ground Shoal field in Cook Inlet.

#### The Kenai Petroleum Refinery

The Kenai Petroleum Refinery is Alaska's only oil refinery. It is located at Nikiski Beach, 22 miles from the Swanson River field, and it went "on stream" in August, 1963. This refinery processes about 20,000 barrels of crude oil per day from the Swanson River field, making a line of products which includes military and civilian jet fuel, stove oil, diesel and furnace fuels, and industrial fuel for use in the Alaskan market. Residual products are shipped to California for processing. The refinery does not produce gasoline at the present time, however, whenever changing economic and market conditions make it feasible, the refinery will be expanded to permit the manufacturing of gasoline.

One important factor determining the economic health of a state is the ability of that state to process locally its mineral resources into marketable products. The 10 million dollar Alaskan refinery of the Standard Oil Company of California is an example of an industry extending such development to include the production of ultimate consumer products.

#### The Arctic Slope

Most exploratory drilling in Alaska to date has taken place near navigable water or near the existing Alaskan road system because of the great cost and difficulty of moving heavy equipment to remote onshore areas. Thus far, except for the Navy's Arctic Slope operations, exploratory activities have been limited essentially to relatively ice free shorelines, the Cook Inlet, or to areas on the Kenai Peninsula. However, in spite of the logistical problems caused by Alaska's remote location, extreme variations in climate and terrain and vast areas of virgin

land, the petroleum industry is shifting its activities to the inland basins, the Arctic Slope and various other areas in Alaska. This shift has been stimulated in part by the industry's increased knowledge of Alaska's geology and improvements in exploration techniques. Much of the newly directed exploratory interest has been centered in the Arctic Slope area north of the Brooks Range.

Some geologists feel that Alaska's Arctic Slope may have the greatest petroleum potential of any geological province within the United States. Also, the Canadians are currently exploring for oil deep in the Arctic. There is sufficient geological evidence that the Canadian Arctic islands contain a major oil province.

Interesting developments are currently taking place which will ultimately make the "remote Arctic" much less remote from specific petroleum markets in Europe. Both American and Canadian-British petroleum groups are actively contemplating the use of nuclear powered commercial submarine tankers to move oil directly across the Arctic basin to European markets. These 50,000-ton tankers, which are now in the design stage, are described as having the capacity to carry 25,000 tons of oil at 35 knots. The proposed tankers would operate all year-round and would carry oil only half the number of sea miles in their trip from the Arctic to Europe that surface tankers would have to travel in order to supply European oil markets from competitive areas.

Thus, Alaska's geographic location offers promise of ultimately placing its petroleum and other mineral resources in a strategic position in relation to world markets.

#### Income and Employment in Alaska's Petroleum Industry

Employment in the petroleum industry in Alaska has increased 72 percent in the last five years from an average of 430 persons employed in the industry in 1959 to an average level of 738 in 1963. See Table V. By the end of July, 1964 approximately 900 persons were working in the oil and gas industry throughout the state. Since 1959 the total yearly payroll for the industry has approximately doubled to reach a 1963 total of over 8 million dollars. Over the past 5 year period the petroleum industry has

Table IV

SWANSON RIVER OIL FIELD PRODUCTION 1958 - 1963		
YEAR	NUMBER OF PRODUCING WELLS	BARRELS OF OIL PRODUCED
1958	2	35,754
1959	5	186,590
1960	18	557,999
1961	45	6,326,501
1962	51	10,259,110
1963	55	10,739,964
	Total	28,105,918

disbursed a total of \$29,557,866 to the State's economy in the form of total yearly payrolls. During the past 5 years the industry's average weekly wage rate has increased from about \$184 to over \$210, an increase of approximately 14 percent.

#### Industry Costs High in Alaska

The costs of the petroleum firms operating in Alaska are very high compared to their costs elsewhere for similar activities. This is true whether the activity undertaken involves exploration, production, transportation, or refining.

The costs of manpower in Alaska's petroleum industry range from 40 to 50 percent higher than the oil-industry

**Table V**

<b>TOTAL EMPLOYMENT AND WAGES PAID IN THE ALASKAN PETROLEUM INDUSTRY 1959 - 1963</b>			
	Average Number Employed	Average Weekly Wage Rate*	Total Yearly Payroll
1959	430	\$184.	\$4,112,445
1960	393	188.	3,844,818
1961	598	201.	6,241,944
1962	684	205.	7,294,994
1963	738	210.	8,063,665

\*These wage rates reflect actual hours worked, bonus and gift payments, and augmented payments for overtime.

SOURCE: Employment Security Division, Alaska's Department of Labor.

scale in other states. Weighted material or gel costs on the average over twice as much delivered on the Kenai Peninsula as it usually does delivered elsewhere, and drilling and operating costs in Alaska generally exceed those in other states by over 100 percent according to industry authorities.

A typical drilling day on the Kenai Peninsula, whether exploratory or developmental, is reported to cost about \$4,000. Remote onshore camp operations in Alaska result in daily costs of about \$7,000 and the costs of offshore drilling in the Cook Inlet reportedly run between \$14,000 and \$16,000 per day.

In spite of these high costs, the various oil companies operating in Alaska obviously feel that oil exploration and production here will prove to be profitable in the long run. If this were not true, they would not be making such large capital investments in Alaska and would not be pursuing their activities here so vigorously.

#### Summary of Petroleum Industry Activity in Alaska

An inspection of the data in Table II reveals the intensity and variety of activity involved in the rapid development of the petroleum industry in Alaska.

In the years 1959 through 1963 a total of 90 exploratory wells and 72 development wells were spudded. During this same 5 year period a total of 58 oil wells and 20 gas wells were completed and 68 wells were abandoned.

Petroleum industry activity in Alaska was greatest in 1961. In that year the industry spudded the greatest number of development wells (29), completed the greatest number of oil wells (27), and drilled the greatest amount of total footage. Moreover, the State of Alaska received more revenue from the petroleum industry in 1961 than in any other year.

The estimated industry expenditures, excluding marketing and sales costs, increased 115 percent from \$30,654,000 in 1959 to \$65,859,000 in 1963. The total estimated industry expenditures were \$242,223,000 over the five year period.

#### Favorable Alaskan Oil Industry Factors

Several factors making the prospects of producing Alaskan oil attractive to major petroleum companies are given below.

One important factor is the discovery of good quality crude oil in large quantities at a location relatively close to the population center of the West Coast. Over 90 percent of all the power, light and heat used in the Western United States is derived from petroleum. California's petroleum production is declining and that state now uses much more petroleum daily than it can produce. The increasing demand for oil throughout the entire western part of the United States has made the movement of Alaskan oil to the California and Puget Sound areas more attractive.

A second factor making the exploration for, and production of, Alaskan oil worthwhile is the fact that since Alaska is a state, oil originating in Alaska and transported to the West Coast cannot be subjected to foreign quotas. Importation of oil into the United States from Saudi Arabia and other foreign areas is controlled and limited by the U.S. government. This one fact, according to top industry officials, makes Alaskan oil much more valuable to American petroleum companies than comparable oil from the Middle East.

The favorable political climate in Alaska is another factor attracting major petroleum companies. Alaska is politically safe, there is no danger of expropriation of private property here in Alaska as there is in many foreign areas. Also, Alaska has been liberal with its incentive royalty rates. Alaska permits the payment of reduced royalty rates on production for a 10 year development period following the drilling of discovery wells. The state also permits large-scale lease holdings which is reported to be a prime incentive for the development of oil exploration and production activities.

Another favorable factor is that "pro-rata production" is not required in Alaska. Consequently, Alaskan oil wells

can produce at the maximum efficient rate rather than at the lower pro-rata rate required in many other areas.

Petroleum is truly one of the world's most useful substances. Today the petroleum industry supplies over half of the constantly mounting energy requirements of the world, as well as an ever-increasing volume of non-energy products. In its raw state, the usefulness of petroleum is very limited, however when properly processed it appears to have an almost inexhaustible versatility. The petroleum industry provides the power to: heat and light our houses, do most of our hard work and propel our vehicles. Also, through the technology of petro-chemicals, it provides the people of the world with various kinds of synthetic rubber, fibers, fungicides, solvents, fertilizers and an almost endless variety of plastic compounds. Moreover, clothing, cosmetics, furniture, vodka, materials with which to build a house and many other items are being made from petroleum.

But of all of the potential uses of petroleum, perhaps the most revolutionary is the use developing through the new culture process known as biosynthesis. Through this process, petroleum is being transformed into a protein-rich food. This type of food has been produced in the laboratory and is now in the pilot plant stage.

Through chemistry it is possible that the products required to supply all material human needs may be made from petroleum in the future. Thus it appears certain that Alaskan petroleum will continue to find an active market.

Prospects for the petroleum industry in Alaska for the remainder of 1964 and for the next few years ahead are exceedingly bright. Stimulated by the profitable production of oil from the Swanson River Field, the encouraging discovery of two new oil fields in the Cook Inlet, one in 1963 and another in 1964, and the favorable results of the seismic and geological exploration on the north slope of the Brooks Range and elsewhere in the state, the oil industry will undoubtedly continue to increase its activity in Alaska.

#### ALASKA EMPLOYMENT TRENDS

Figures issued by the Employment Security Division of the Alaska Department of Labor show that, in mid-June, there were approximately 81,500 persons employed in the State of Alaska. This was a seasonal increase of 6,500 over May, but it was also 2,800 greater than the employment figure recorded for June of 1963.

There were some tourist cancellations due to the earthquake which in turn caused a level of employment lower than expected in the retail trades, services and transportation categories. Despite this curtailment most industries enjoyed increases in employment from May to June. For example, from May to June there was an employment increase of 1,600 in the food processing area, but this was somewhat lower than the predictions made

#### ESTIMATED CIVILIAN WORK FORCE AND EMPLOYMENT TRENDS FOR ALASKA

INDUSTRY	June 1964	PERCENT CHANGE FROM	
		May 1964	June 1963
CIVILIAN WORK FORCE.....	86,100	+ 6	+ 2
INVOLVED IN WORK STOPPAGES...	14	0	-50
TOTAL UNEMPLOYMENT.....	4,600	-22	-19
Percent of Work Force.....	5.3	-	-
TOTAL EMPLOYMENT.....	81,500	+ 9	+ 4
Non Agricultural Wage and Salary..	70,200	+ 8	+ 4
Mining .....	1,400	+17	0
Construction .....	7,000	+43	+30
Manufacturing .....	7,500	+32	- 6
Food Processing.....	4,000	+67	-44
Logging, Lumber and Pulp.....	2,500	+ 4	+ 4
Other Manufacturing.....	1,000	+11	+11
Transportation, Communication and Utilities.....	6,900	+ 5	- 7
Trucking and Warehousing.....	1,000	0	- 9
Water Transportation.....	1,200	+20	-14
Air Transportation.....	1,900	+ 6	0
Other Transportation, Communication and Utilities....	2,800	0	- 7
Trade .....	9,000	+ 7	- 2
Wholesale Trade.....	1,600	+ 7	- 6
Retail Trade.....	7,400	+ 7	- 1
General Merchandise Apparel.....	2,000	+18	0
Food Stores.....	11,000	0	0
Eating and Drinking Places.....	1,800	0	- 5
Other Retail Trade.....	2,500	+ 9	0
Finance, Insurance and Real Estate.....	2,100	+ 5	+11
Service and Miscellaneous.....	7,200	+ 1	+ 4
Government .....	29,100	+ 1	+ 6
Federal .....	18,200	+ 2	+ 7
State .....	6,600	+ 2	+ 3
Local .....	4,300	- 7	+ 8

for this employment category before the earthquake. Employment in contract construction increased as anticipated.

The overall increase in employment during the past twelve months resulted from the general expansion of the entire Alaskan economy prior to the earthquake as well as to post-earthquake construction activities.

In June the Alaska labor market enjoyed a sharp decline in unemployment due to the normal seasonal job fluctuation. The number of unemployed persons in Alaska in June of 1964 was 4,600, which was 1,300 less than the unemployment figure for May and 1,100 less than it was in June of 1963. The jobless figure decreased from May to June in all industries with the exception of finance, insurance and real estate.

There has been a movement of immigration from the other states for the purpose of obtaining earthquake reconstruction work. This movement is in addition to the normal seasonal influx of job seekers arriving in Alaska every summer. Also contributing to the 5.3 percent unemployment rate in Alaska in mid-June was the normal yearly flow of high school and college students into the labor force. The seasonal pattern of decreasing unemployment should continue through September.

**KETCHIKAN, ALASKA**

Population in City Limits 6,900	May 1964		Number of Occupied Dwelling Units 2,450
	Population in Trade Area 10,500		
<b>EMPLOYMENT TRENDS</b>			
		Percent change from	
	May 1964	April 1964	May 1963
Mining .....	0	0	0
Contract Construction .....	210	+24	0
Manufacturing .....	1,280	+ 9	0
Transportation, Communication and Public Utilities .....	570	+10	+ 4
Trade .....	500	+ 6	+ 2
Finance, Insurance and Real Estate..	90	0	0
Service and Miscellaneous .....	350	+ 6	+ 9
Government .....	760	+ 1	+ 9
Other .....	600	+ 9	+ 9
Total Employment .....	4,360	+ 8	+ 4
Total Unemployment.....	250	-27	- 7
Total Civilian Work Force.....	4,610	+ 5	+ 3
Percent Unemployed.....	5.4		
<b>SELECTED BUSINESS DATA</b>			
Postal Receipts 1963.....	\$192,954		
Telephones in Service.....	2,587	- 1	+ 2
Lighting and Power Customers.....	3,251	- 1	+ 2
Municipal Water Customers.....	2,389	- 1	0
Kilowatt Hours Sales.....	3,193,190	- 8	+ 1

**Ketchikan**

Estimated total employment in the Ketchikan labor market area in mid-May was 4,360 compared to 4,050 for the preceding month according to the Employment Security Division of Alaska's Department of Labor. Normal seasonal movements were responsible for the increased employment, with the largest change occurring in the manufacturing industry. Increased logging and lumbering activities were the chief factors in greater manufacturing employment, although pre-season cannery work also increased slightly. Other industries experiencing seasonal increases were construction, transportation-communications and utilities, trade, services and government. There were no month-to-month decreases reported.

The total number of unemployed persons actively seeking jobs was estimated at 250 in mid-May, which was a decrease of 90 from the preceding month. The unemployment rate, or the percent of the work force unemployed, dropped from 7.7 in April to 5.4 in May. Job opportunities in the construction, trade, services, and transportation-communications and utilities categories caused the monthly decrease. Both the jobless total and the unemployment rate in May were slightly less than they were in May of 1963, owing to a decline of joblessness among longshoremen. The Ketchikan employment outlook calls for continued seasonal expansion of job opportunities through August, especially in fish processing.

**JUNEAU, ALASKA**

Population in City Limits 7,500	May 1964		Number of Occupied Dwelling Units 1960 2,286
	Population in Trade Area 12,000		
<b>EMPLOYMENT TRENDS</b>			
		Percent change from	
	May 1964	April 1964	May 1963
Mining .....	10	0	0
Contract Construction .....	290	+38	+21
Manufacturing .....	170	- 6	- 6
Transportation, Communication and Public Utilities.....	470	+ 7	+ 2
Trade .....	700	+ 6	+ 8
Finance, Insurance and Real Estate..	130	0	+ 8
Service and Miscellaneous.....	440	0	+ 2
Government .....	3,020	+ 1	+ 8
Other .....	580	+ 6	0
Total Employment.....	5,810	+ 4	+ 6
Total Unemployment.....	180	-25	-10
Total Civilian Work Force.....	5,990	+ 2	+ 6
Percent Unemployed.....	3.0		
<b>SELECTED BUSINESS DATA</b>			
Postal Receipts.....	\$20,721.27	-20	- 1
Telephones in Service.....	4,533		
Lighting and Power Customers.....	7,581		
Municipal Water Customers.....	1,142		
Kilowatt Hours Produced 1962.....	34,457,737		

**Juneau**

Estimated total employment in the Juneau labor market area increased by 200 from April to 5,810 in mid-May according to the Employment Security Division of Alaska's Department of Labor. Seasonal gains in contract construction were responsible for most of the increase, however advances were also made in the trade, government, and transportation-communications and utilities categories. Employment was 340 above that in May of 1963. This was a 6.2 percent increase. Most of this gain occurred in the State government category, but trade and contract construction also showed gains. Employment in the logging and lumbering industries decreased over the year, offsetting, to some extent, a small gain in food processing.

Juneau's total unemployment in mid-May was estimated at 180 and the percent of the workforce unemployed dropped to 3.0 from the 4.1 percent figure for April. Most industries shared in the decrease of joblessness, and, the jobless total and unemployment rate were slightly less than in 1963. The number of unemployment insurance claims filled in May was less than in May of 1963 in all categories except manufacturing workers. New entrants into the labor force in May of 1964 were substantially lower than in May of 1963.

The future outlook for employment in the Juneau labor market area is good. Further seasonal gains are anticipated in construction and most other industries.

**FAIRBANKS, ALASKA**

Population in City Limits 15,051	May 1964		Number of Occupied Dwelling Units 4,964
	Population in Trade Area 39,927		
<b>EMPLOYMENT TRENDS</b>			
		Percent change from	
	May 1964	April 1964	May 1963
Mining .....	220	+29	0
Contract Construction.....	810	+45	-4
Manufacturing .....	240	+9	0
Transportation, Communication and Public Utilities.....	890	+6	+7
Trade .....	1,560	+7	+8
Finance, Insurance and Real Estate..	440	+5	+2
Service and Miscellaneous.....	1,300	+6	-2
Government .....	4,990	0	+3
Other .....	1,260	+14	+2
Total Employment .....	11,710	+7	+3
Total Unemployment.....	1,010	-19	+10
Total Civilian Work Force.....	12,720	+4	+3
Percent Unemployed.....	7.9		
<b>SELECTED BUSINESS DATA</b>			
Postal Receipts.....	\$54,500	-6	-4
Telephones in Service.....	5,596	-1	+2
Lighting and Power Customers.....	9,186	-1	+5
Municipal Water Customers.....	1,988	+2	+25
Kilowatt Hours Sales.....	6,346,844	-10	+14

**Fairbanks**

Total employment in the Fairbanks labor market area increased to an estimated 11,710 in mid-May from 10,990 in mid-April according to the Employment Security Division of the Alaska Department of Labor. This increase in employment of 720 was a normal seasonal increase of about 7 percent. The contract construction industry accounted for over one third of the overall increase, with smaller gains in employment levels occurring, over the previous month in all other industry categories. Compared to May of 1963 the total employment level in May of this year was up 3 percent due primarily to increased Federal government employment. Trade employment in May of this year was also substantially above the May, 1963 total. During the same 12 month period a small increase occurred in the transportation-communication and utilities employment areas. Although metal mining activity declined from last year's level, oil exploration increased somewhat, with the net result that total employment in mining was unchanged from May of last year.

Estimated total unemployment in the Fairbanks area declined to 1,010 in May from April's unemployment figure of 1,250. This decrease of 240 reduced the unemployment rate to 7.9 from April's level of 10.2 percent.

From May of 1963 to May of 1964, kilowatt hour sales increased by 14 percent in Fairbanks, and municipal water customers increased by 25 percent.

**ANCHORAGE, ALASKA**

Population in City Limits 49,700	May 1964		Number of Occupied Dwelling Units 14,311
	Population in Trade Area 102,100		
<b>EMPLOYMENT TRENDS</b>			
		Percent change from	
	May 1964	April 1964	May 1963
Mining .....	540	+6	+10
Contract Construction.....	2,360	+38	+33
Manufacturing .....	690	+6	0
Transportation, Communication and Public Utilities.....	2,210	+4	-10
Trade .....	4,000	+2	-8
Finance, Insurance and Real Estate..	1,080	+1	+7
Service and Miscellaneous.....	3,270	+7	+3
Government .....	12,950	+3	+7
Other .....	2,730	+13	-3
Total Employment .....	29,830	+7	+4
Total Unemployment.....	1,380	-41	-29
Total Civilian Work Force.....	31,210	+3	+2
Percent Unemployed.....	4.4		
<b>SELECTED BUSINESS DATA</b>			
Postal Receipts.....	\$161,300	+9	+27
Telephones in Service.....	24,873	0	+1
Lighting and Power Customers*....	23,557	+1	+3
Municipal Water Customers.....	9,402	-3	-6
Kilowatt Hours Sales*.....	19,629,287	-6	+1

\*Data now includes the customers and sales of the Chugach Electric Association

**Anchorage**

Estimated total employment in the Anchorage labor market area increased to 29,830 in mid-May according to the Employment Security Division of Alaska's Department of Labor. This was an increase of 1,830 over the mid-April total. See Table above. The construction, service and government categories registered the greatest advances but generally, gains were made in all industries. Local construction firms were awarded emergency contracts for debris removal, rebuilding, demolition and strengthening of structures damaged by the earthquake. Approximately 400 new jobs opened up in the State and Federal government categories due largely to the earthquake. The opening of hotel and motel facilities, and the seasonal activity in construction, mining, and communications increased employment in the services industries.

From April to mid-May total unemployment decreased by 960 to an estimated 1,380. The decrease was due primarily to the greatly increased job opportunities in construction work. A decrease in the immigration of non-Alaskans helped bring down the unemployment rate to 4.4 in mid-May.

Many of the out-of-state job seekers arriving in April have left the Anchorage area. Total unemployment was greatly affected by their migration movements.

**ERRATA**

Vol. I No. 3, Table II — should read 200,000-250,000 lbs. of milk.