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OREGON ACADEMY OF SCIENCE ABSTRACTS
Geology and Geography Section - 1960 and 1961

The 15 abstracts published in this issue of the ORE BIN are from papers presented before the Geology and Geography Section of the Oregon Academy of Science at its 1960 and 1961 meetings.

Between 1943 and 1954, all abstracts submitted were published in one of the three volumes of the "Proceedings of the Oregon Academy of Science." Since 1954, however, it has not been feasible for the Academy to publish its proceedings and as a result the abstracts have not appeared in print.

Many of the papers that have been presented in the Geology and Geography Section are of lasting value because they reveal areas of geologic interest, progress of studies, and new discoveries. Thus, in order to make this information available to the public, the Department of Geology and Mineral Industries is printing the abstracts in the ORE BIN with permission ot the Academy. It is planned that as space permits selected sbstracts from meetings prior to 1960 will also be published. Publication of abstracts for the 1962 Oregon Academy of Science meeting will rest on the decision of the Academy.

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SOME ASPECTS OF THE REGIONAL GEOLOGY OF SOUTH-CENTRAL OREGON

By George W. Walker
U. S. Geological Survey, Menlo Park, California

Abstract

Reconnaissance geologic mapping of south-central Oregon is being done by the U. S. Geological Survey, in cooperation with the State of Oregon Department of Geology and Mineral Industries, as part of a larger program to prepare a geologic map of the eastern half of the state. Current work in south-central Oregon is limited geographically to the eastern half

of the Klamath Falls 2-degree quadrangle and to the western part of the adjoining Adel quadrangle.

Rocks exposed in this region are all of Cenozoic age, and include local thick prisms and thin attenuated sheets of basalt that intertongue with or are separated by units of tuff and tuffaceous sedimentary rock which are subaerial, fluviatile, and lacustrine in origin. Late Cenozoic lake deposits are widespread.

The age of the oldest Cenozoic rocks, which include volcanic materials largely of andesitic and dacitic composition as well as some altered basalt, is unknown; they are overlapped, however, by acid tuff and tuffaceous sedimentary rocks that contain fossils of probable John Day age. Fossil vertebrates, plants, and diatoms indicate that the stratigraphic section also contains rocks of middle and late Miocene age as well as rocks of Pliocene and Pleistocene age.

Structurally, the area is characterized by broad anticlinal and synclinal warps that are highly modified by block faulting and by constructional volcanic features. Concurrent warping and block faulting were active at least by middle Miocene time; they were dormant, or nearly so, at the time of formation of high-level pluvial lake terraces, possibly as late as 11,000 years ago. By mid-Pliocene time, and perhaps considerably earlier, separate depositional basins had formed that affected the distribution of the Pliocene and younger eruptive and sedimentary rocks. (1961)

GEOCHEMICAL PROSPECTING FOR COPPER IN THE BAKER, OREGON, AREA

By Richard G. Bowen
State of Oregon Department of Geology and Mineral Industries

Abstract

Field testing of streams and soils for their copper content was done during the summer of 1960 in an area near Keating, Baker County, Oregon. Prospecting was restricted to the Clover Creek Greenstones, a formation in which small amounts of copper have been found in the past.

Streams draining the area were sampled using dithizone. Soil samples were taken and tested with 2, 2' biquinoline. Several traverses were made in order to determine the background content of readily available copper in the various rock units of the Clover Creek Greenstones.

An anomaly having a minimum size of 7 acres was found during the soil sampling program. (1961).

HISTORY OF LATE TERTIARY MAMMALIAN FAUNA OF THE NORTHERN GREAT BASIN

By J. A. Shotwell
Museum of Natural History, University of Oregon

Abstract

In the late Tertiary, mammalian faunas of the Northern Great Basin show dramatic changes. Many groups of mammals are lost. Numerous mammals from Eurasia, South America, and other regions of North America appear as new members of the fauna in the Pliocene. The beginnings of the modern fauna are in this segment of time. These mammals may be assigned to communities by using careful quantitative techniques. The investigation of the resultant fossil mammalian communities has provided essential information concerning the origin and diversity of communities. It provides a basis for the study of faunal change as it concerns environmentally related mammals. A review of vegetational change indicates that a close correlation exists between these two histories. These two areas of investigation point out significant facts which allow a basic understanding of the history of our fauna. (1961)

THE ROLE OF WEATHERING IN GEOMORPHOLOGY

By Ira S. Allison
Department of Geology, Oregon State University

Abstract

In the development of major land forms, weathering is primarily the preparation of material for removal by such erosional agents as wind, streams, glaciers, and waves. The term weathering properly encompasses only the physical disintegration and chemical decomposition of rocks. It is sometimes confused with the more inclusive term erosion. Weathering does not ordinarily include removal, except perhaps in solution or by gravity.

The direct effects of weathering, except talus piles, are comparatively small-scale features. Because of this smallness of scale and the possible assistance of other factors in origin, we may be inclined to minimize the role of weathering.

The indirect effects of weathering, however, are extensive. Rocks that weather readily become easily erodable. Conversely, rocks resistant to weathering generally resist erosion also. Hence erosion remnants commonly endure, not simply because of their hardness or massiveness, but mainly because of their resistance to weathering.

Weathering reduces hard massive rocks to a more easily erodable state, although fresh, unweathered rock can be eroded directly, as by abrasion or glacial plucking. The materials first prepared by weathering are then ready for easy wear by streams, glaciers, and waves. Weathering is, therefore, an important preliminary step in the degradation of the land. (1960)

GEOLOGY OF THE SPRUCE MOUNTAIN AREA, ELKO COUNTY, NEVADA

By George R. Harlow

Humble Oil & Refining Co., Eugene, Oregon

Abstract

Spruce Mountain is located in southeastern Elko County, Nevada, approximately 55 miles southeast of Elko and 95 miles north of Ely. The range is an elongate, north-south trending anticline modified by normal faulting. Two major periods of structural deformation are apparent: (1) a period of large-scale overthrusting accompanied by minor northeast-trending high-angle reverse faulting and northwest-trending tear faulting, and (2) a period of gentle folding with contemporaneous or slightly later high-angle normal faulting.

The overthrust separates the rocks into two distinct successions. Strata from the Pogonip Formation (Lower Ordovician) to the Ely Formation (Pennsylvanian) crop out in lower plate exposures, and the upper plate contains the Oquirrh Formation (Pennsylvanian-Permian) to the Dinwoody (?) Formation (Triassic). Most of the strata of the lower plate succession, lithologically and faunally, seem to correlate best with formations exposed west and south of Spruce Mountain, whereas the upper plate succession most closely resembles rocks exposed to the east and northeast.

Late Tertiary conglomerates, siltstones and tuffs flank the range and are overlain on the east by Quaternary (?) ignimbrites. Large granite porphyry dikes and numerous small diorite dikes crop out in the central part of the area. (1960)

OCCURRENCE, DESCRIPTION, AND ORIGIN OF "OREGONITE"

By Len Ramp
State of Oregon Department of Geology and Mineral Industries

Abstract

"Oregonite" is an attractive variety of gem-quality spherulitic jasper found in the Illinois River district, Josephine County, Oregon. It occurs as lenses in a weathered zone between flows of amygdaloidal metabasalt of the Upper Jurassic Rogue Formation and probably formed as cavity fillings of silica gel. The silica spherulites have radiating, concentric structure and are colored by hematite, which occurs as dust-like inclusions in the fibrous quartz. Source of the hematite may have been from weathered basalt in the interflow zone. Relatively late deposition under a low temperature environment is suggested by the limited crystal growth and relatively unfractured condition of the rock.

The occurrence has been worked occasionally since the early 1900's. A total of about $1\frac{1}{2}$ tons has been mined and marketed as uncut gem stone and finished hand-made jewelry. Uncut material is selling for as much as $5.00 per pound. (1961)

TERTIARY AND QUATERNARY FAULTING IN SOUTHWESTERN HARNEY COUNTY, OREGON

By Neil J. Maloney
Department of Geology, Oregon State University

Abstract

The northern part of the Basin and Range physiographic province extends into southwestern Harney County. Tertiary and younger volcanic rocks and terrestrial sediments are exposed throughout the area. Horsts, grabens, and tilted fault blocks are the most common topographic features.

Three stages of faulting are recognized. The first stage was during the upper Miocene, when faulting occurred along fractures striking N. 0-10°E. and N. 40-60° E. The rhombic nature of the faults, their near vertical dips, and the steep but highly varied dips of the Miocene volcanics, all

indicate that the fractures formed as a result of north-northeast, south-southwest horizontal compression and are conjugate wrench faults. However, there is no evidence indicating extensive strike-slip displacements.

The second stage of faulting occurred during the middle Pliocene, when a set of normal faults, striking N. 40-60° W., was formed.

The third stage of faulting occurred after the emplacement of the most recent basalt flow but prior to the deposition of the alluvium. Therefore, this stage of faulting probably occurred during the Pleistocene. The north- and northeast-striking fractures developed during the first stage were refaulted by the normal faulting of the third stage.

The major topographic features of the area are a result of normal faulting during the second and third stages of deformation. However, the rhombic pattern shown by many of the fault blocks was inherited from first stage of faulting. (1961)

THE HIGH CASCADES GRABEN AND THE "MYTHINTERPRETATION" OF MOUNT MULTNOMAH

By John Eliot Allen
Department of Earth Sciences, Portland State College

Abstract

Recent papers by several authors have suggested a genetic relationship between grabens, calderas, and ignimbrites. It is suggested that mappable and inferred faults formed an early Pliocene High Cascades graben, similar to the present Rio Grande graben of New Mexico, whose northern end in Oregon is the Hood River valley and whose southern end is the Klamath Valley. Crater Lake caldera (like Valle Grande caldera) lies within this down-dropped block, as does the Three Sisters volcanic complex. Although the ring of peaks which Hodge once called the remnants of the caldera wall of Mount Multnomah have been shown to be individual necks of Pliocene volcanoes, it is believed that they may well also represent the trace of a more ancient caldera or ring-structure, and Ur-Mount Multnomah of lower Pliocene age, now buried and concealed (along with its explosive debris) by the extensive lavas from the volcanoes erupting through the ring-structure fractures. The early Pliocene Rattlesnake-Danforth ignimbrite sheet of central Oregon may represent the explosive activity of Ur-Mount Multnomah, or it may be derived from a possible similar buried caldera at Big Summit Prairie. (1961)

SANDSTONE INTRUSIONS AT ASTORIA, OREGON: THEIR ORIGIN AND STRUCTURAL IMPLICATIONS

By R. Kenneth Dodds
U. S. Army Corps of Engineers

Abstract

Sandstone intrusives have been known to exist at Astoria, Oregon, since 1849, when they were reported by J. D. Dana. Since that time three other writers have offered theories as to their origin. Dana postulated an origin by infiltration from above; Diller thought that they were forcefully injected from below; Washburne and Seitz, in general follow Diller's explanation. The writer, as a result of a mapping project in Clatsop County, Oregon, discovered many inadequacies in all previous explanations, and so here proposes a theory which will satisfy the field evidence.

It is proposed that the sandstone intrusions as exposed at Astoria, Oregon, were implaced by the forceful injection of sand downward from the overlying sandstone beds. The force of the intrusion logically relieved itself along the path of least resistence during folding. For intrusions from above, this would be along the crests of the anticlines. It is then possible broadly to locate the anticlinal crests by mapping sandstone intrusion concentrations. (1960)

HISTORICAL REVIEW OF ASTORIA TYPE LOCALITY

By Betty Rae Dodds
Portland, Oregon

Abstract

James Dana published a description of the Miocene fossils found in 1841 in Astoria, Oregon, thereby making Astoria the type Miocene of the West Coast. Subsequent writers have referred to this area. The location of a type section in a populous town has brought many difficulties, among which are the masking of the originally described exposures and the impermanence of reference points, thus making it difficult to locate oneself

according to previous authors. The physical plan of Astoria at his time and the relocation of his reference points are given for each of the following: James Dana, 1841; Thomas Condon, 1880; W. H. Dall, 1890; John S. Diller, 1896; Chester Washburne, 1910; H. V. Howe, 1921; Ewart M. Baldwin and R. E. Stewart, 1945. It is suggested that the present-day geologist use other than cultural objects as reference points and that they be aware of the difficulties of establishing important locales in an area which some day may be densely populated. (1960)

WELDED TUFF IN THE DANFORTH FORMATION

By Ernest H. Lund
Department of Geology, University of Oregon

Abstract

The Danforth Formation, described and named during the investigation of the groundwater resources of the Harney Basin by Piper, Robinson, and Park in 1939, is a heterogeneous accumulation of sedimentary and volcanic rocks. The sedimentary rocks are largely of pyroclastic material and include tuff, siltstone, sandstone, and conglomerate. The volcanic rocks are mainly silicic, but some are basaltic. The formation is capped by a widespread welded tuff, and it is this member with which the present study is concerned.

A series of specimens from near the Silvies River locality described by Piper and others was examined microscopically. At this locality the welded tuff member is about 45 feet thick and rests upon well sorted and stratified volcanic sedimentary rock.

At the base of the welded tuff unit is non-sorted, non-laminated, weakly lithified tuff that grades upward through a thickness of about 5 feet into a dense black glass. About 30 feet of the member is perlitic, spherulitic glass. The glassy material grades into a pinkish gray lithic rock about 10 feet thick at the top of the member.

The rock throughout the entire sequence is characterized by shard structure. At the base the shards are somewhat randomly oriented but become progressively flattened, stretched, and oriented into a planar structure through the transition zone. The upper 10 feet has been largely devitrified, which accounts for its lithic appearance. (1961)

MARINE JURASSIC OUTLIERS IN THE JUNIPER MOUNTAIN AREA OF NORTHERN MALHEUR COUNTY, OREGON

By N. S. Wagner and Howard C. Brooks
State of Oregon Department of Geology and Mineral Industries

Abstract

An investigation of some magnetic iron prospects in the vicinity of Brogan, Oregon, led to the mapping of several previously un-mapped exposures of rock of pre-Tertiary age in an area otherwise occupied by predominantly Tertiary volcanics and continental sediments. Study of the pre-Tertiary exposures led in turn to the discovery of fossiliferous graywackes and shales of mid-Jurassic age. The discovery of these Jurassic strata is geologically important in two ways. One is that these strata constitute a link in a chain of exposures which now serve to show that the Jurassic seas extended from central Oregon into western Idaho. Secondly, recognition of this Jurassic section will undoubtedly be of ultimate value in resolving some of the stratigraphic problems connected with the correlation of the pre-Tertiary strata exposed in the neighboring portions of Baker and Malheur Counties where some lithologic units are thought to be Jurassic yet lack the fossil control needed to prove the correlation with certainty. (1961)

OIL AND GAS EXPLORATION IN OREGON

By Vernon C. Newton, Jr.
State of Oregon Department of Geology and Mineral Industries

Abstract

The search for oil in Oregon began 43 years after Edwin L. Drake discovered oil in his well near Titusville, Pennsylvania, in 1859. Two wells were drilled by Churchill & Associates during 1902 in the vicinity of Newberg in Yamhill County. No shows were obtained while drilling these wells.

Since Mr. Churchill's venture, 153 test holes have been drilled and though some have reported shows, not one produced oil or gas in commercial amounts. Only 15 wells have been drilled to depths below 5,000 feet

in Oregon so far, all by major oil companies. Stratigraphic information obtained in these drillings indicates a thick Tertiary marine section in western Oregon and presence of marine sediments below the Clarno Formation in central Oregon.

No large seeps of oil or deposits of residual hydrocarbons have been found in the state, but writers have reported several small questionable seeps in western Oregon and two petroliferous sand outcrops in southeastern Oregon. Traces of oil have been detected in the drill cuttings and cores in several recent drillings both in western and central Oregon.

Gas has been encountered by drillings in many locations throughout the state, but so far in quantities too small to be commercial. Gas production for Oregon during the years 1907, 1908, and 1909 is reported in U. S. Geological Survey "Mineral Resources of the United States", 1909, Part II. This gas was used domestically by several ranchers in eastern Oregon. Petroleum fractions have been reported in analyses of gas samples from Oregon suggesting that oil is associated with the gas. (1960)

THE FOSSIL FLORA OF THOMAS CREEK

By Wallace Eubanks
Salem, Oregon

Abstract

The purpose of this study was to identify the fossil flora of the Thomas Creek drainage, Linn County, Oregon, and to attempt to determine the age of the rocks at the upper Thomas Creek locality on the basis of the fossil flora. This paper describes the fossil flora from two localities in this drainage. The lower area had been previously dated by use of fossil leaves and geology. This study makes use of fossil leaves, fruits, flowers, and wood and describes the methods and problems involved in identifying fossil wood.

The lower Thomas Creek locality occurs in the SE¼ sec. 2, T. 10 S., R. 1 E., at an elevation of about 575 feet. The upper locality is in the NE¼ sec. 16, T. 10 S., R. 2 E., at an elevation of about 1,300 feet, about 5 miles east of the lower locality.

The rocks cropping out in Thomas Creek in the vicinity of the lower locality are the Mehama Volcanics of Oligocene to lower Miocene age. The total thickness here is unknown, but the uppermost 650 feet is exposed

along the valley walls of Thomas Creek. These rocks are composed of tuffs and breccias, in places partly opalized. The Mehama Volcanics are capped by basalt named the Snow Peak Lavas of middle Miocene age. These lavas thicken toward the source at Snow Peak. North of Thomas Creek, the Snow Peak Lavas are capped by Fern Ridge Tuff considered to be Pliocene in age by Smith. These rocks are composed of tuffaceous siltstone and sandstone and are capped by a unit of pumice breccia containing appreciable basaltic fragments.

The lower leaf location occurs in the bed of Thomas Creek. Adjacent to the creek bed the Mehama Volcanics are overlain by Quaternary alluvium, but it is again exposed in the valley walls. Leaves from this locality have been identified as follows:

Castanopsis	Lindera	Platanus
Cercidiphyllum	Magnolia	Prunus
Ficus	Metasequoia	Taxodium
Fraxinus	Nyssa	Tilia
Laurophyllum	Phoebe	

The woods from this locality have been identified as Platanus and Sequoia among others.

The upper Thomas Creek flora occurs in an indurated tuff which has been partially opalized. The best exposures occur in ground scars from logging operations. Direct tracing of the Mehama Volcanics from the mapped area to the west is difficult because of a cover of erosional material and dense vegetation. The following leaves, flowers, and fruits occur in the upper Thomas Creek locality.

Leaves:	Platanus	Flowers:	
Acer	Pterocarya		Hydrangea
Gingko	Prunus		Porana
Magnolia	Rhus	Fruit:	
Metasequoia	Taxodium		Betula

The following woods among others were found in this locality:

Cinnamomum	Sequoia	Tsuga
Fagus	Platanus	Reptonia

The occurrence of Porana indicates the flora of the upper Thomas Creek locality to be lower Miocene, since this flower has not been found in beds younger than upper Oligocene to lower Miocene. (1960)

INDIAN MOUNDS IN BENTON COUNTY

By John E. Smith
Corvallis, Oregon

Abstract

Mounds, mostly of unknown origin, have been found along or near the Willamette River and several of its tributaries, including the Yamhill, the Luckiamute, the Calapooia, and the Long Tom Rivers. The most prevalent type, generally circular in shape (diameter, 30 to 50 feet, height, 1 to 4 feet) occurs on the natural levees some distance from the present channel of the stream.

Many of another type, elliptical in shape (30 to 80 yards long and half as wide or less) are built on small islands among the flood-plain distributaries of an aggrading river, their longer axes lying nearly parallel to the stream when the islands were formed. Some of the elongated elliptical mounds along the Willamette seem to be low, gravelly ridges formed by deposition from flood waters.

Mounds opened in Benton County have produced the following: mortars and pestles, knives, arrow points, spearheads, beads, part of an ax blade, skull and fragments of skeleton, part of a flintlock rifle, a brass kettle, and other things. The Yamhill mounds also gave up parts of a flintlock rifle in 1896 and Spanish coins in 1938.

Comparing in detail the sizes, shapes, and contents of these black-soiled hummocks and their locations respectively with regard to the nearby streams, one finds them so nearly identical as to necessitate the conclusion that the groups of mounds mentioned above for the Willamette Valley were the work of contemporaries, and that some of them were used by the Indians for burial grounds until after the arrival of the white settlers in 1846. Of their earliest use, we have no record. (1960)

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NOTICE: MINING SAFETY CODE HEARING

The State Industrial Accident Commission announces that a public hearing will be held on May 16 at 9:30 a.m. in Room 203, Labor and Industry Building in Salem to consider the proposed safety code for mining, tunneling, and quarrying.

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DEPARTMENT RECEIVES GIFT OF LAW VOLUMES

The department has received a five-volume set of the American Law of Mining as a gift from the George Nisbet Memorial Library Fund. The set, published by the Rocky Mountain Mineral Law Foundation in 1960, represents the most up-to-date and comprehensive compilation of American mining law available. The volumes are bound in loose-leaf form and can be modernized as changes in the law occur. The five volumes cost $150.

George Nisbet, a prospector who lived for many years on the upper reaches of the Clackamas River, died in his cabin August 13, 1958 at the age of 80. He was one of the region's last old-time prospectors. Born in Scotland, he caught the mining fever in the diamond mines of South Africa, participated in gold rushes in Canada and the United States, and located the quicksilver deposits along the Clackamas which bear his name.

The memorial fund committee, headed by A. O. Bartell, felt that its selection should reflect, if possible, the interest that George Nisbet expressed during his lifetime and furthermore that the volumes chosen should be a worthwhile addition to the department's library and one which the library, in all probability, would not be able to acquire otherwise.

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AEROMAGNETIC ALBANY-NEWPORT MAP ON OPEN FILE

The U. S. Geological Survey has released "Preliminary Interpretation of an Aeromagnetic Map of the Albany-Newport Area, Oregon," by R. W. Bromery, as an open-file report. A copy of the report, consisting of map and text on one sheet, may be consulted at the Department's Portland office, or reproductions can be made from it at private expense.

The map, which has a scale of 1:62,500, covers approximately 1,200 square miles in western Oregon between 44° 30' and 44° 45' N. latitude, and 123° 00' and 124° 05' longitude. It is based on 34 east-west traverses flown approximately 750 feet above the ground using an airborne magnetometer.

Three distinct anomaly patterns reflect: 1) a central uplifted area of volcanic rocks (Siletz River Volcanic Series) bounded by major faulting; 2) sedimentary basin and intrusive rocks to the west; and 3) the Willamette basin to the east containing 10,000 to 15,000 feet of sedimentary rock.

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ECONOMIC IMPACT OF OIL INDUSTRY ON A NEW STATE

Both from the standpoint of development of natural resources, and from increased revenues to the treasury of a new state, seeking financing means for state improvements, the impact of Alaska's oil industry has made itself felt on all levels of public and private life.

Roscoe Bell, state Director of Lands, estimates that 20 per cent of the entire financial support for the state comes from oil and gas lease revenues and royalties.

Donald D. Bruce, chief of the petroleum branch of Alaska's Division of Mines and Minerals, predicted Alaska would realize in revenue, other than leasing, about $13 million in royalties and taxes from oil and gas production in the Swanson River and Kenai Gas Fields over a 6-year-period.

The state division of budget and management estimated income from oil and gas lease bonuses during the fiscal year 1961-1962 would amount to $5,161,376. Bonuses on competitive lease sales held during the 1961 calendar year alone total $22,184,380.16.

Alaska receives 90 per cent of the receipts from the mineral leasing of federal lands within the state, including oil and gas royalties. Alaska's gross production tax amounts to one per cent of the well-head value of the oil and/or gas, and the conservation fund tax is based on 5 mills per barrel of oil, or 50,000 cubic feet of natural gas.

For the first six months of 1961, Alaska received $2,474,228.63 from oil and gas leases on federal lands within the state.

The Mines and Petroleum Bulletin in July estimated that 600 people were directly employed in exploration and development categories of Alaska's petroleum industry, representing an annual payroll of over five million dollars. It also estimated that the petroleum industry has expended between 100 and 125 million dollars in Alaska in exploration and development during the past 10 years, with 18 companies active in the state in July, and the possibility of 3 more entering state activity before the end of the year. These estimates include the Navy's Pet 4 program north of the Arctic Circle.

Expenditures by oil companies for 1961 alone are expected to exceed $53 million, as compared with $35 million in 1960 and $30,654,000 in 1959.

The growing importance of the industry in Alaska is demonstrated by the increased numbers of local businesses and companies who are assigning full time sales and service representatives for oil field equipment in the state, building new stores in Anchorage, and in Soldatna and Sterling in proximity to producers on the Kenai Peninsula.

Air carriers, land consultants, geologists and engineers, supply and service companies from shipping to trucking to map-making and publishing

have all been directly affected by Alaska's growing oil industry. Indirectly there is no doubt that the industry touches on the lives of all residents in the state. (Alaska Construction, Dec.-Jan.-Feb., 1962, republished by permission of Robert W. Benson, Editor.)

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"DISCOVERY" TEST

Citing the growing concern of the mining industry over administrative interpretations of the rules of discovery as they apply to mining claims, Rep. Wayne Aspinall (Colo.) recently announced that the House Interior Committee has been aware of this problem and has been watching it closely. He said that the Interior Department secretariat has assured him that those directing the Department's actions do not subscribe to the thesis "that the law should or can be revised by administrative action."

He went on to say that in the event the intent of Congress is lost, or if administrative interpretation of the law results in its subversion, "the Congress will be responsive to the demands of the national interest and enact laws necessary to assure that the basic Congressional policy is carried out fully."

Aspinall also said the Interior Committee is "watching with interest the efforts of industry and Government representatives to formulate legislation to provide a safeguard for pre-discovery claims in view of the large expenditures required to conduct exploration work." He expressed the view that Congress will look sympathetically on the principle of this legislation. (American Mining Congress Bulletin Service, February 9, 1962)

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AMENDED OIL AND GAS LAWS PUBLISHED

Changes in the oil and gas laws by the 1961 Oregon Legislature made it necessary for the Department of Geology and Mineral Industries to revise again Miscellaneous Paper No. 4, "Rules and Regulations for the Conservation of Oil and Natural Gas." The publication contains the new unitization law and amended definitions to ORS 520. In addition to the oil and gas laws, Miscellaneous Paper No. 4 now contains sections from ORS 274 and 275 dealing with oil and gas leasing on state lands, including the Tide and Submerged Lands Act of 1961. Price for the second revised edition is $1.00.

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SEATTLE AIME CONFERENCE DETAILED

The announcement in the January ORE BIN about the forthcoming conference of the AIME-A.S.M. has been enlarged upon by the following news item from Donald L. Anderson, general chairman.

Plans are being completed for the AIME-A.S.M. Pacific Northwest Minerals and Metals Regional Conference scheduled for April 26 and 27 at Seattle. A total of nine sessions will be held in geology, mining, industrial minerals, mineral processing, extractive metallurgy, and physical metallurgy. The program is essentially complete and papers to be presented will emphasize progress and growth of the Pacific Northwest.

The British Columbia Section, C.I.M.M., has been invited to attend and has been included on the mailing list along with AIME-A.S.M. A good attendance is expected from Canada and it is believed that closer cooperation with C.I.M.M. will benefit both institutes.

For Thursday, April 26, the luncheon speaker will be Professor Emeritus Joseph Daniels, who will speak on the growth of the metallurgical industry in the Northwest.

On Friday, April 27, the guest speaker will be Roger V. Pierce, President-Elect of AIME, whose topic will be "The Countdown and You."

The conference is headed by Donald Anderson and Earl Roberts of the University of Washington, and Robert Shinkoskey of the Tacoma Smelter is the program chairman.

Convention headquarters will be the Benjamin Franklin Hotel in downtown Seattle and the World's Fair, which opens April 23, will be only a few minutes away by high-speed monorail.

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OAS MEETS AT LEWIS AND CLARK COLLEGE

The 1962 meeting of the Oregon Academy of Science was held on Saturday, March 3, at Lewis and Clark College in Portland. Papers were presented both morning and afternoon at the four sections: biology, chemistry, mathematics-physics, and geology-geography. Luncheon and business meetings were also on the program. A new aspect of the 1962 meeting was the distribution of abstracts of papers presented. Ten papers were scheduled for the geology-geography section, with Dr. Jon C. Cummings as chairman.

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