NPS Form 10-900
(Oct. 1990) Oregon WordPerfect 6.0 Format (Revised July 1998)

United States Department of the Interior
National Park Service

1285

OMB No. 10024-0018

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *How to Complete the National Register of Historic Places Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer to complete all items.

1. Name of Property

historic name OREGON PACIFIC RAILROAD LINEAR HISTORIC DISTRICT

other names/site number

2. Location

street & number Roughly a 20 mi section of the Old Railroad Grade between Idanha & the Cascade Range summit n/a not for publication

city or town Willamette National Forest, Deschutes National Forest n/a vicinity

state Oregon code OR county Marion, Linn, Jefferson code 047, 043, 031 zip code N/A

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this ✓nomination _ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ✓meets _does not meet the National Register criteria. I recommend that this property be considered significant _ nationally ✓statewide __locally. (✓ See continuation sheet for additional comments.)

Michael J. Kaczor Sept. 28, 1999
Signature of certifying official/Title Date

USDA Forest Service
State or Federal agency and bureau

In my opinion, the property x meets _does not meet the National Register criteria. (_ See continuation sheet for additional comments.)

/Deputy SHPO December 22, 1998
Signature of certifying official/Title Date

Oregon State Historic Preservation Office
State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that this property is:

for Signature of the Keeper Date of Action

X entered in the National Register. Carol R. Lunzer 10/29/99
_ See continuation sheet.
_ determined eligible for the National Register.
_ See continuation sheet.
_ determined not eligible for the National Register.

_ removed from the National Register.

_ other, (explain:)_____

Oregon Pacific RR
Name of Property

Marion, Linn, ~~Jefferson counties,~~ OR
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply)

- ☐ private
- ☐ public-local
- ☐ public-State
- ☒ public-Federal

Category of Property
(Check only one box)

- ☐ building(s)
- ☒ district
- ☐ site
- ☐ structure
- ☐ object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
		buildings
2		sites
20		structures
		objects
22	0	Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(Enter categories from instructions)

Transportation, rail-related, railroad grade

Current Functions
(Enter categories from instructions)

~~Vacant, not in use~~

7. Description

Architectural Classification
(Enter categories from instructions)

N/A road grade

Materials
(Enter categories from instructions)

foundation N/A

walls

roof

other

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

see continuation sheets

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [x] **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [x] **B** Property is associated with the lives of persons significant in our past.
- [ ] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [x] **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

- [ ] **A** owned by a religious institution or used for religious purposes.
- [ ] **B** removed from its original location.
- [ ] **C** a birthplace or grave.
- [ ] **D** a cemetery.
- [ ] **E** a reconstructed building, object, or structure.
- [ ] **F** a commemorative property.
- [ ] **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Engineering, Transportation - ~~related~~
Ethnic Heritage, European

Period of Significance

1887-1889

Significant Dates

1887 - ~~commencement of construction~~
1889 - construction work halted

Significant Person
(Complete if Criterion B is marked above)

Thomas Egenton Hogg

Cultural Affiliation

Euro-American

Architect/Builder

Colonel Eccelson

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- [ ] preliminary determination of individual listing (36 CFR 67) has been requested
- [ ] previously listed in the National Register
- [ ] previously determined eligible by the National Register
- [ ] designated a National Historic Landmark
- [ ] recorded by Historic American Buildings Survey # _____
- [ ] recorded by Historic American Engineering Record # _____

Primary location of additional data:

- [ ] State Historic Preservation Office
- [ ] Other State agency
- [ ] Federal agency
- [ ] Local government
- [ ] University
- [ ] Other

Name of repository:

_____

Name of Property | County and State

10. Geographical Data

Acreage of Property 172.26

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1			
2			
3			
4			

☒ See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Ward Tonsfeldt, Tim Trussel, William Boyer

organization Ward Tonsfeldt Consulting date Feb. 12, 1998

street & number 463 NW Congress telephone (541) 389-7965

city or town Bend, OR 97701 state _____ zip code _____

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional Items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name Darrel Kenops, Supervisor, Willamette National Forest / Sally Collins, Supervisor, Deschutes National Forest

street & number PO Box 10607 / 1645 Highway 20 E telephone 541/456/6522; 541/383-5574

city or town Eugene / Bend state OR zip code 97440, 97701

SECTION 7 NARRATIVE DESCRIPTION

Scope of the Resource

In August of 1995, the Willamette National Forest initiated a study of the Oregon Pacific (or Hogg) railroad to determine whether the uncompleted portions of the railroad might be eligible for nomination to the National Register of Historic Places.[1] The Oregon Pacific was built during the 1880s from Yaquina Bay, on the Oregon Coast, across the Coast Range and through the Willamette Valley in a generally west-east course. The railroad was completed as far east as Idanha, Oregon, in the foothills of the Cascade Mountains (see figs. 1,2, and 3). Although the railroad was shortened during the 1950s, it continues to operate as a branch line of the Southern Pacific system, largely employed in transporting lumber and other forest products.

While the completed portion of the Oregon Pacific has been a successful if rather mundane branch line, the uncompleted portion has loomed large in Oregon folklore and oral tradition. It continues to exercise a powerful influence on the public imagination. Portions of the grade are visible from the highway and have inspired legends of Chinese laborers, impractical railroad schemes, and construction crews fleeting through the forest when the company failed to pay them.

The Oregon Pacific was originally planned as a link in an transcontinental system that would cross Oregon from west to east to connect with the Union Pacific railroad in Idaho. East of its terminus in Idanha, the construction crews in the 1880s pushed grades into the rugged Cascade Mountains, climbing toward a previously unknown pass that

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[1]The name "Oregon Pacific Railroad" was used by Thomas Egenton Hogg, Wallis Nash, and other members of the firm after 1880 to refer to the entire railroad as conceived, extending from Yaquina Bay to a junction with the Union Pacific system in eastern Oregon or Idaho. The complex corporate history of the system has left us a bewildering list of names used at certain times or for specific portions of the system. These include the following: Corvallis and Yaquina Bay Railroad, the Willamette Valley and Coast Railroad, Oregon Central and Eastern Railroad, Corvallis and Eastern Railroad, and Portland and Southeastern Railroad.

would bring the railroad into the high desert country of central Oregon.

By any measure, the construction crews' efforts were heroic. Cutting through the mountains with black powder and hand tools required strenuous work. The uncertainties of both the work and the international financial markets added to the adventure. Unfortunately, before the route through the Cascades could be completed, the Oregon Pacific was forced into bankruptcy. The succeeding owners of the railroad had no interest in reaching across the state, so the transcontinental scheme languished and died. Finally, in 1936, the state of Oregon built a highway through the Cascades on a route following the old Oregon Pacific route.

Many railroads were begun in the western states during the 1880s. It was a time of optimism and speculative frenzy. Railroad promoters promised great things and many failed to deliver. While unsuccessful railroads were by no means rare, the Cascade Division of the Oregon Pacific, as its builders liked to call it, had the dubious distinction of being one of the few railroads that was literally abandoned in the midst of construction. Much of the system remains as it was in 1889 when the builders walked away from it. On the best segments, tools and equipment remain on the ground where the workers left them. Seen in this light, the Oregon Pacific is a unique museum of the engineering methods, technology, and living conditions that prevailed on construction projects in the West during the last decades of the nineteenth century.

Many railroads were begun in the western states during the 1880s. The Oregon Pacific is one of the few that was not completed. Since very little of the railroad grade was re-used for highway construction in 1936, much of the project remains as it was in 1889 when the builders abandoned it. On the best segments, tools and equipment remain on the ground where the workers left them. Seen in this light, the Oregon Pacific is a unique museum of the engineering methods, technology, and living conditions that prevailed on construction projects in the West during the last decades of the nineteenth century.

In recent years, sites on the Oregon Pacific have been the scene of Willamette National Forest Profiles in Time (PIT) archaeology projects. These projects have contributed substantially to the data available about the system and our knowledge of the people who worked on it. The Oregon Pacific, as a cultural resource, has also benefitted

by recent preservation efforts along the completed parts of the line. These include preservation of a historic railroad bridge in Mill City and the depot buildings in Toledo, Mill City, and Albany.

Condition of the Resource

The eastern extension of the Oregon Pacific railroad is a discontinuous linear resource consisting of two distinct parts. The first part is a complex of grade segments and sites beginning at Idanha, in Marion County, and extending east along the North Santiam River for approximately 8.5 miles to a point near Pamelia Creek. This portion of the resource includes five segments of grade and a camp site near Tunnel Creek (figs. 4 and 5).

The second part of the resource is a complex of grade segments and camp sites that begins at point near the historic Santiam Wagon Road in Jefferson County, and terminates at a point in the NW 1/4 of section 3 (T. 13 S., R. 7 ½ E.) in Linn County (see figs. 8 and 9). This portion of the resource extends for a total distance of approximately 11.5 miles across the summit of the Cascade Range.

Evidence from historic documents and from field survey data confirms that construction was started at two points simultaneously in 1887 and that the construction crews intended to meet at a point midway between Idanha and the pass. After they abandoned their work in the fall of 1889, construction was not resumed.

The railroad grade is found on the route in five condition categories:

A) Completed grade ready for ties and rail
B) Grade under construction--cuts, fills, and other earthwork discernible but not complete
C) Grade under construction--clearing and preliminary earthwork, but no cuts, fills, or roadbed
D) Grade re-used as motor vehicle road that retains dimensions and engineering characteristics of the railroad

E) Grade obliterated by new construction on the original route

The first three categories designate grade preserved with little impact on the fabric of the resource. Grade segments in these categories are eligible for nomination to the National Register under the general provisions of 36 CFR 60.4 and the specific provisions of a programmatic memorandum of agreement negotiated in 1986 between the USDA Forest Service Region Six and the Oregon State Historic Preservation Office.

Camps and other sites are considered to be associated with the Oregon Pacific on the basis of the following criteria:

A) Evidence from proximity to the railroad
B) Evidence from historical documents
C) Chronological evidence established by artifacts

Historic camps associated with the railroad construction provides archaeological evidence that adds a dimension to our understanding of the railroad and the people who worked on it.

Geographical Setting

The Oregon Pacific's civil engineer, known to us only as "Colonel" Eccleson, chose the route of the railroad during the summer of 1881. The route follows the North Santiam River from a point near its confluence with the Santiam River to a point east of the Cascade summit. Elevations along this route range from 400' above sea level at Albany, Oregon, to an elevation of 4900' at the Cascade summit. The basic engineering challenge in building a railroad through mountainous terrain is to select a route that will keep gradients and curvature as low as possible. A gradient of 4% or 4'/100' was the maximum that main-line railroad equipment could negotiate in the 1880s. Curves tighter than 10 degrees/100' exceeded the practical limits of curvature.[2] Railroads that met or

[2]See Walter Mason Camp, *Notes on Track: Railroad Construction and Maintenance* (Chicago, 1904); and William H. Searles, *Field Engineering: A Handbook of the Theory and*

exceeded these limits could not be operated safely or profitably. In addition to the dangers of derailment and brake failure, railroads also had to consider such vital economic factors as payload per train, operating speeds, and fuel consumption.

Eccleson's route followed the North Santiam river to its source and then generally proceeded west along the southern skirt of Three-Fingered Jack, an 7800' peak in the central part of the range. The railroad then gained elevation to cross the Cascade divide by contouring around the sides of Hogg Rock to reach an elevation of 4800'. This expedient brought the railroad to the summit, but it required building grades on the nearly perpendicular rock sides of the butte. These grades are extant, and can be seen from the highway. They remain as one of the most dramatic examples of nineteenth-century railroad construction in the Northwest.

In addition to its rugged terrain, the Cascade range also presents a challenge in its unpredictable weather patterns. Like other Pacific Coast ranges, the Cascades bear the brunt of Pacific storms moving east onto the continent. These storms bring gale-force winds and torrential rains, which cause flooding and slides. In the winter temperatures plunge below zero, and snow accumulations reach more than 10'. Hogg Rock is especially vulnerable to avalanches, which occasionally close the highway, although it was built at a lower elevation than the railroad.

Research Questions

The Oregon Pacific would be nominated to the National Register under criteria A, B and D, as developed in the Code of Federal Regulations, Title 36, Part 60. Criterion A calls for the resource to be "associated with events that have made a contribution to the broad patterns of our history." Criterion B calls for an association with the lives of significant personages. Criterion D calls for the resource to be "likely to yield information important in history or prehistory." Criterion D addresses the archaeological potential of the resource. Evidence gathered in previous studies makes it clear that

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Practice of Railroad Surveying, Location, and Construction (New York: John Wiley and Sons, 1949).

information contained in some of the individual sites is considerable. The question remaining was whether the archaeological potential was limited to individual sites or is invested in the system as a whole.

Criterion A--contributions to the broad pattern of history--was rather perplexing in this case since the portion of the railroad under consideration was not completed and was not used. Popular tradition and some older historic accounts present the railroad as an impractical folly or even as a sham perpetrated to deceive investors. If the railroad was impractical or ill-considered, or if it was not a serious attempt, then its significance would be greatly diminished. Evidence from a the field was needed to establish whether the route through the mountains was possible for railroad construction and whether the construction standards of the extant portions were appropriate to a trunk-line railroad of the 1880s.

Finally, once we had reached conclusions about NRHP criteria one and four, we needed to consider the integrity of the resource and its present condition. Only those grade segments that retain their fabric and engineering standards contribute to the resource. If most of the grades were altered beyond recognition, then the system would lack sufficient integrity to be eligible.

In summary, research questions for the field survey included the following specific points:

A) Was the route viable from an engineering standpoint? Did the gradients remain <4% and the curves average <10 degrees/100'? Were bridge and trestle spans within reason? Was total curvature and elevation change kept to a minimum?

B) Were the completed portions of the railroad built to adequate standards for high-speed main line use. This would require a grade elevated >5' above ambient terrain, provided with a firm roadbed, and designed with adequate drainage to prevent washouts and slides.

C) Does the extant part of the system offer sufficient integrity? Does more than half of the fabric of grades and sites remain in an unaltered state?

D) Is there sufficient coherence among the parts of the system? Does the viewer perceive the system as an integrated linear resource, or simply as a group of related sites?

E) Is the resource likely to yield more archaeological information about the people who lived and worked on it--the workers, engineers, and managers. Can we learn more about their crafts, their numbers, their ethnic identities, and the details of their lives?

Methodology of the Field Survey

The most important point of methodology in this survey was to recognize that the term "railroad" designates a complex system of sites and features tied together by railroad grade. Dr. James Rock, who carried out early archaeological investigations of logging railroads in northern California, noted that "When one examines railroad technology it is useful to consider it as a dynamic system made up of a series of subsystems."[3] Subsequent investigators have followed Rock's lead and approached the archaeology of railroads as the study of a system or set of systems much richer than just the grade by itself.

In Rock's analysis, major elements include the railroad grades, the sites, and the landscape. The advantage of this "whole system" approach is that it places each of these elements into context. Without an analysis of the whole system, it is impossible to interpret an individual element with any degree of certainty.

> [When] only a portion of a ...[railroad] system [is] located within a project area . . . we are faced with the difficult proposition of assessing the importance of an isolated camp or a stretch of track without knowing its role in the system as a whole. Even where we have identified the entire system, the lack of a comparative

[3]James Rock, "What's Out There?" Presented at the Society for California Archaeology meeting, May, 1980. Paper on file, Klamath National Forest, Yreka, CA.

base makes evaluation difficult.[4]

In practical terms, this whole systems approach translates into a systematic end-to-end survey of the entire route, noting all features associated with the railroad and its construction. Our survey of the Oregon Pacific followed the route planned for the railroad from its proximal end at Boulder Creek, the historic end of the tracks, to its distal end at a point east of the Cascade summit. Because construction of the Oregon Pacific proceeded from two directions--that is, from Idanha east to the summit and from the summit west to Idanha--we recorded the system from the two proximal ends toward the center.

The field survey of the Oregon Pacific was completed in three sessions: the first occurred in the fall of 1995, the second in the summer of 1996, and the third in the fall of 1996. Determining the probable route of the railroad required collating data from historic maps and recent surveys and transferring that information to USGS maps in the 7.5' series. Since these quad maps are standard for most field work, we have used them as base maps throughout the project.

All historic maps agreed that the tracks laid by the Oregon Pacific ended at Boulder Creek in Idanha. Field investigations confirmed that there was steel on the grade up to that point. West of Idanha, historic maps showed the railroad located on the north side of the North Santiam River and generally close to the stream. At a point near Tunnel Creek, some maps showed that the railroad crossed to the south side of the of the river and then crossed back to the north side at a point near Pamelia Creek. All maps then showed the railroad following the river on the north bank to Big Meadows, section 28, T. 12s, R.7e, where the river originates.

From Big Meadows, the information deteriorates, with gaps and variations between Big Meadows and Hogg Rock. This is also, unfortunately, the part of the route that was included very late in the GLO surveys, so that section numbers between Big Meadow and Hogg Pass do not appear on most historic maps. The route on Hogg Rock is shown clearly on historic maps, however, as is the route across the Cascade summit

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[4]Sonia Tamez, et al., "A Thematic Railroad Logging Research design," *Contract Abstracts and CRM Archaeology,* 1982, p. 35.

east of Hogg Rock and southeast to Hunt's Camp and on to the vicinity of the Santiam Wagon Road.

The civil engineer for the railroad--Colonel Eccleson--chose a path through the mountains that would require gradients of no more than 2%. The portion of the route that followed the North Santiam River stayed within this limit rather easily. Once the railroad left the river in Big Meadows, the route choice was much more challenging. The route shown on the General land Office maps would not have met the railroad's design requirements. Indeed, portions of the route shown on the GLO maps would not have been possible for any railroad construction.

HISTORIC MAPS OF THE OREGON PACIFIC

Name	Date	Characteristics	Source
Eccleson Survey	1881	First survey of the original route after Waldo's discovery in 1880	not found yet
General Land Office	1882-1896	Route surveyed for GLO right-of-way claims. Includes field notes	most townships on file but not complete, missing parts of townships at higher elevations
State School Sections	1887	Map of entire route, Pacific Ocean to Idaho, scale 3 mi. to 1"	on file, Detroit RD
Corvallis and Eastern Railway Co.	1900	Map of line from Idanha to Cascade summit with profiles	Marion County Surveyor
Portland and Southeastern RR Right-of-way	1919	Highly detailed route map with engineering data and notes	National Archives, Seattle
USGS 30' quads, 15' quads	following 1929 edition	Shows railroad, geographical data, some grade	U of O library
National Forest	following 1913 edition	Shows railroad, geographical data	on file, Detroit RD
Metsker's	1930 Township Atlas Linn and Marion Co.	Details of railroad, land ownership, place names	U of O library
Site maps	recent	Maps of documented sites	on file, Detroit RD
Cadastral Survey	1995	Survey of grade used as southern boundary of Mt. Jefferson Wilderness	on file, Detroit RD

The most carefully-drawn of the historic maps is the Corvallis and Eastern Railroad Survey dated 1900. This map has the railroad grade profiles on it, as is the convention with civil engineers' plans. The profiles reveal the actual elevation at each station on the route so that the gradients can easily be calculated. "Station" here means construction stations of one mile, rather than "railroad stations." Another map, prepared in 1919 by the Portland and Southeastern Railway, shows the curvature of the proposed line between Big Meadow and the summit. Evidence from the field has generally shown that these two maps were accurate for the portions of the grade built and that they were most likely based on Eccleson's original location survey, which was made in 1881.

Neither the 1900 map nor the 1919 map showed any grade route east of the Cascade summit, however. The USGS maps show the grade extending east of the summit as far as the Santiam Wagon Road near Cache Mountain. Field investigation has confirmed that grade was built east of the Cascade summit.

Documenting the Grades

Once we had winnowed through the historic maps to chart a "probable route" on the topographic maps, the survey proceeded by following the route on the ground as closely as possible. When we found grade, it was always on this route, or very close to it.

The strategy we followed for finding the grade consisted of the following steps:

A) Walk the mapped grade and adjacent areas looking for signs of grade, earthwork, or clearing done in 1887-1889;

B) Walk transects 90 degrees to the mapped grade to find the grade by crossing it;

C) Field check other linear features near the mapped route, especially roads and linear features revealed by aerial photos;

D) Field check strategic points such as ridges or watercourses adjacent to the mapped route.

This procedure covered the ground as thoroughly as practical. Extant segments of the Oregon Pacific were not necessarily built as a continuous route, however, and locating these disconnected segments is very challenging. Disconnected segments of the grade at Pamelia Creek and at a point northeast of Nutmeg Road, for example, were very difficult to locate since they are very short (<200 yards) and are separated from the rest of the grade by distances of over a mile.

Our prefield survey of completed portions of the grade between Mill City and Idanha had shown that the dimensions of the grade were quite impressive. The width at the crown averaged between 12' and 14' and was sometimes even wider. The height of the fills averaged 6' above ambient terrain. The original grade was built with numerous trestles and carefully engineered drainage systems consisting of ditches on the uphill side of the grade and culverts to carry water across the grade. The engineers' care with the drainage features was no doubt the result of their experience in wet climate of the Willamette Valley and Coast Range.

Because of the height of the grade and the fact that it was designed for many trestles, the unfinished portions of grade are not often suitable for re-use as roads or trails. In general, the grade segments have not been re-used, with the exception of highway construction in the North Santiam canyon and some segments east of the Cascade summit (T. 13 S., R.8 E.). When a linear feature looked like it might have been grade or when a linear feature followed the probable route of the grade, we used the a matrix to provide consistent interpretations.

Documenting the segments of grade by field records, photography, and mapping proceeded according to the contract specifications. Segments were identified on the ground with steel datum stakes and aluminum tags. Segments were measured using the Imperial system of feet and yards, since this scale was used by the original engineers and contractors. We used tape and hip chain for linear measurements. For the grade segments, we surveyed the original right-of-way for features and artifacts. This is a strip 100' wide along the grade, 50' on either side.

The field strategy for the project also included field checking the abandoned grade from Detroit to Idanha. This examination of the completed grade provided data about the gradient, curvature, and engineering standards of the railroad that could not be observed on the uncompleted portion. It also helped us comply with NPS requirements for end-to-end surveys of proposed linear districts.

Evaluation System

Evaluation of historic railroad grades in Region Six has generally followed a strategy developed for the NRHP nomination of the Sumpter Valley Railroad in 1986 and approved as a programmatic memorandum of agreement (PMOA) by the USDA Forest Service Region Six and the Oregon State Historic Preservation Office. Since the portion of the Oregon Pacific surveyed for this project was never completed, it offers some grades and sites that do not fit the original classification system very well. Accordingly, we modified the original system to accommodate this project.

Evaluation of the segments followed a five-part division by integrity and completion.

Class A Grade Completed grade with no impact by re-use or other activities. Generally, grade in this category was ready for ties and rails, but trestles and bridges were not built.

Class B Grade Grade that is under construction, not completed but with extensive earthwork intact. There is no re-use or impact by other activities

Class C Grade Grade route visible on the ground through evidence of preliminary earthwork and clearing activity during the historic period. This category of grade is very difficult to detect, and segments in "C" class can be distinguished clearly only when they are bordered by better-defined segments. Re-use would obliterate evidence of C-class grade. This category may be unique to the Oregon Pacific system.

Class D Grade Grade in this class has been re-used as a forest road which modifies

the grade but preserves the original dimensions and earthwork.

Class E Grade In this category, the route of the railroad grade is preserved, but the grade itself has been re-used as highway. None of the original fabric is preserved on the surface.

In previous historic railroad surveys and evaluations in Oregon, The State Historic Preservation Office has generally found that grades that had not been altered by re-use were nominable to the National Register, but those that had been altered were not. Since the Oregon Pacific system is a special case, as an unfinished railroad, the first three classes of grade meet the criterion of nominability, while the last two do not.

Results of Previous Work

First Survey of the Grade (Silvermoon 1985)

The first recording on the Oregon Pacific occurred in 1985, when McKenzie Ranger District Archaeologist Jon Silvermoon recorded the segments of grade at the Cascade summit between Forest Roads 2690 and 900. These are now numbered segments W97A and W97B. A portion of this segment is mapped as a Forest Road and numbered 3550. The McKenzie Ranger District assigned site number 0714H to the grade. Silvermoon correctly identified the uncompleted grade at the eastern end of the segment and noted its apparent connection to the conspicuous grade work on Hogg Rock.

Archaeological Resources Protection Act Salvage (ARPA), 1992 (Bergland, 1992)

In 1991, Forest Service personnel on the Willamette National Forest were notified that John Frye, from Bend, Oregon, had discovered a cache of hand tools near the grade in the NW 1/4 of section 23, T. 13 S., R. 7 ½ E. Frye's photographs of the site, taken in 1989, showed, however, that artifacts visible on the surface of the site in 1989 had been illegally removed by 1992. Further investigations confirmed that "other Hogg railroad camps and complexes had been the scene of relic collecting for many years." In view of the unique nature of the tool cache and the concern about illegal collecting, Forest Service personnel decided to excavate the tool cache site and collect the artifacts. Zone Archaeologist Eric Bergland led the salvage recovery at the cache site.

The cache is a perplexing feature on the Oregon Pacific system and has prompted a good deal of speculation. The explanation in the oral tradition is that when the workers on the grade were notified that the Oregon Pacific was in financial trouble, they feared that they would not be paid, dropped their tools, and left for town. The presence of other construction artifacts on other Oregon Pacific sites is cited as confirmation of the confusion surrounding the firm's bankruptcy. This is a colorful explanation, but it does not fit other evidence very well.

Work on the summit section of the system began in February of 1887 and continued for nearly a year until December of 1887 (see table 1). This first crew was employed by contractor G.W. Hunt. Hunt dropped his contract for non-payment by the OP, but there is no evidence that Hunt did not pay his crews. Other crews that were not paid caused trouble in Albany and Corvallis, and this is well-documented in newspapers of the time. A report in the July 13, 1888, edition of *The Oregon Statesman* documented Hunt's orderly retreat from the pass, with crews bringing equipment and teams down to Albany. According to the newspaper account, Hunt left his son Charles at the camp through the winter to guard equipment and supplies left there.

Hunt was a well-established contractor and presumably knew how to handle clients who did not pay. He dropped the contract and then quickly sued the railroad after he suspended work, subsequently recovering his money in an out-of-court settlement. Hunt and his men were seasoned contractors and do not fit the oral account of panicky

workmen dropping their tools and running down the mountain.

After Hunt left, the summit section lay idle for 18 months until July of 1989, when contractors Antonelli and Doe of San Francisco resumed work at the top of the pass. If Hunt's men had left useful equipment behind, we could expect Antonelli and Doe's crews to have put it to use. These people worked on the summit section, reportedly completing four miles of grade during the summer and early autumn of 1889. Their departure from the summit in November of 1889 was apparently not newsworthy. Again, even if the railroad had failed to pay, the contractors would still have been responsible for paying their men. The bankruptcy of the Oregon Pacific occurred nearly a year later in October of 1890, but by then work had been halted since the fall of 1889.

Whoever left the tool cache took pains to conceal it under a log near the grade but 50 yards down slope. The tools include 21 shovels, 12 picks, 14 pry bars, and several fragments of other items. A complete inventory appears in the appendices. These tools could have been left by contractors certain that they would return, or the tools could have pilfered by workers and concealed for later removal. Whatever the explanation, the cache was a remarkable find. Subsequent problems with looting on the system have confirmed the wisdom of salvaging the cache and recording the essential data.

Profiles in Time (PIT) Investigation at Lost Lake Creek Trestle Site (Bergland 1993a)

In 1993, Zone Archaeologist Eric Bergland supervised an investigation of the Lost Lake Creek site near the tool cache which had been salvaged in 1992. This investigation included a camp site on the creek (07-300H.A), a structure site (07-300H.B), the cache site (07-300H.C), and the grade at the trestle approach (07-33H.D). All of these loci, plus others scheduled for investigation, were in the Lost Lake Creek complex, within a radius of 100 meters.

Artifacts recovered during the investigation include industrial items in the dump cart group (see below), associated tools, and blasting powder cans. A complete inventory of artifacts recovered is on file at the Willamette National Forest SO, and the artifacts are stored at Oregon State University.

Profiles in Time (PIT) Investigation at Tunnel Creek Camp and Grade (Kelly 1995)

This PIT project was supervised by Cara Kelly, Detroit Ranger District Archaeologist. The project included excavation, surface collecting, and mapping in a complex area that was originally a Oregon Pacific construction camp. The site has been re-used by recreational campers since 1936, when Highway 22 provided access to the area. This site had also be the scene of some ARPA violations.

The most impressive features on this site are the three stone ovens and one additional stone structure of undetermined use. These ovens were built in many locations in the West by railroad workers from the Mediterranean areas, especially Greece and the Italian peninsula.[5] One of the dome ovens on this site has not collapsed, which is unusual since they are made of dry laid fieldstone.

Historic Wagon Roads in the Santiam Pass Area (Hosick and South 1994; Bergland 1995)

In addition to the route of the Oregon Pacific over Hogg Pass, there was a wagon road that apparently approximated the route of the railroad, at least in part. A survey report on site 07-376H prepared by Hosick and South confirms the location of a wagon road from Santiam Junction to Lost Lake, and then east to the Cascade summit. During the 1996 field season, we found a westerly extension of this road around the north edge of the lava beds in the NW 1/4 of section 15 (T. 13 S., R. 7 E.). Artifacts on this portion of the road included camping items but no items associated with railroad construction. One explanation of this road is that it began at Fish Lake and then extended east to Lost Lake. Since Fish Lake was a popular destination for recreation and a popular camping

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[5]See Priscilla Wegers, "Who's Been Workin' on the Railroad?: An Examination of the Construction, Distribution, and Ethnic Origins of Domed Rock Ovens on Railroad-Related Sites," *Historical Archaeology* 25 (1991) p.37-65.

spot on the Santiam Wagon Road, the road to Lost Lake may have been associated with recreational use or livestock grazing.

This road appears to be different than the road shown on the 1898 General Land Office map, which is labeled "Road to the R.R.Camp." This latter road extends across the saddle north of Hogg Rock and leads to Hunt's Camp. Bergland's report on this road and a related camp site (07-410H) provides good evidence of artifacts from the 1880s and blasting powder cans which were used on the Oregon Pacific construction. It seems most likely that this road was used by the construction crews to reach the grade work at the summit from their camp.

Artifacts, Sites, and Features on the Oregon Pacific System

As we noted in a previous section, preserving surface artifacts and features on the Oregon Pacific has been an acute management concern. When the last construction workers left the unfinished grades in the autumn of 1889, the future of the railroad was uncertain. All railroads experienced vicissitudes during construction, so the Oregon Pacific's financial plight was not really unusual. Construction of the Northern Pacific, for example, had been suspended for several years during the 1870s. But, unlike the Northern Pacific and other railroads, the Oregon Pacific was not completed. Until Highway 22 was completed, the grades and sites were virtually inaccessible to casual visitors. Because the Oregon Pacific was neither completed nor re-used, and there was no access to the grades before highway construction in 1936, it remained for 47 years just as the workers had left it. Since 1936, the proximity of Highway 22 has offered access to most parts of the system. Evidence from old photos, oral accounts, and recent Forest Service experience makes it clear that artifacts have been disappearing at a steady rate for the last 60 years

In the late 1930s the public discovered the Oregon Pacific and its treasure-trove of abandoned equipment. Robert Sawyer, editor of the *Bend Bulletin,* led a party to visit the grades and sites in 1936. Photos of that visit, some which were published in the *Bulletin,* show many artifacts that are no longer extant. Later visits by photographer Paul Hosmer of Bend also document the condition of sites and artifacts on the ground in the late 1930s.

Artifacts left on the Oregon Pacific sites included wreckage of horse-drawn dump carts, the remains of rail-mounted trams, and hardware associated with wooden rails for the trams. Steel rails, reported as 40 lb rail, were laid on the summit for 200'. During World War II, the rails and other steel artifacts were removed from the summit section as scrap iron. One dump cart was provided with a wooden body, and the wheels and axles of that vehicle are currently on display at the Deschutes Historical Center in Bend. Photos taken in the late 1930s show high concentrations of artifacts at several places on the system. By 1996, however, few of these artifacts remain on the surface, and only the most remote sites retain large artifacts. The two segments of the system that have been most difficult to reach remain relatively rich in artifacts, although one of these has been subject to recent depredations.

The amount of artifacts left on the system has suggested to many that the builders left in a hurry, abandoning their tools and equipment. An alternate explanation is that the builders abandoned broken equipment when and where it failed. Steel axles from dump carts on the Whitewater Creek site, for example, are all broken. Photos taken during the construction of the Southern Pacific railroad across the Willamette Pass in 1926 show broken carts and other equipment abandoned along the grade. Dump cart wreckage on the Pamelia Creek site, for example, was pushed off the grade into a fill, where it would have been buried had the work continued.

Artifact Group 1 - Hand Tools

Items in this group are hand tools associated with construction. These artifacts were found in the Tool Cache site and the adjacent grade at the Lost Lake Creek trestle site (segment W710C1, sect. 21, T. 13 S., R. 7 ½ E.). One shovel was also found near the Nutmeg Road site (segment W723B, sect. 3, T. 13 S. ,R. 7 E.). For a discussion of the excavation of the Tool Cache site and the Lost Lake Creek Trestle site, see Bergland, 1992b and 1993.

Shovels

These are Ames shovels marked "Ames Cast Steel." Those in the tool cache were in new condition and provided with handles, which had decayed. The handle ferrule was attached to the

blade with eight rivets and furnished with three rivets for the handle. The catalog of the Pacific Hardware and Steel Company of San Francisco lists the shovel as "long handle shovel, round point." Five manufacturers provided shovels in this model, with the Ames being the heaviest (70 pounds/dozen) and the most expensive ($16.00/dozen).

Picks

Picks were found in the tool cache. These were in new condition, showing no signs of battering. The larger picks are unmarked, but the one small (3.5 lb.) pick is marked with "5R7" on one side. On the other side, there are some illegible markings and what appears to be a trademark. The manufacturers of the larger picks did not identify their product, but the quality of the forging is not good, with conspicuous voids and irregularities remaining. The Pacific Hardware and Steel Company catalog lists nine designs of pick heads. The picks from the tool cache seem closest to the "Drifting" or "Railroad" pick pattern. Pacific Hardware sold pick heads without handles.

Pry Bars or Pinch Bars

These tools were used for levering rocks by hand. The design is distinctive, featuring a chisel-pointed head 1 1/4" square and 12" long. The bar then tapers to an octagonal section for 10" and then a tapering round section for the remaining 30". There are no visible manufacturers' marks on these tools. Fourteen pry bars were excavated from the tool cache in 1992.

Drill Steel and Drilling Spoons

These tools vary considerably in dimensions and design. They were found on the grade segment adjacent to the tool cache. Two pieces of stock steel also found on the grade suggest that the company blacksmith made the drills and spoons as they were needed by the crews. These items show signs of considerable use.

Other Tools

Other tools found in the tool cache excavation and the PIT project excavation of the Lost Lake Creek segment are listed in the catalog in the Appendix. The uses of some of these are not clear, nor do they appear in manufacturers' catalogs of the period.

Artifact Group 2 - Dump Cart Parts

Artifacts associated with the horse-drawn dump carts are distributed widely over the system. These artifacts have been identified on the Whitewater Creek segment, the Pamelia Creek segment, and the Lost Lake Creek segment. The dump cart was a convenient means of moving rock or earth to be removed from cuts or added to fills. With its large wheels and short turning radius, the vehicle was well-suited to the rough terrain of the Cascades. In the late 1880s, the dump carts would have been filled by hand work with shovels. In places where the grade was well-established, the contractors could use the rail-mounted trams, and in places where the earth was loose, they could use horse-drawn scrapers or Fresnos, but for much of their work, the dump cart was apparently the best choice.

The illustration of a "Railroad Dump Cart" from the Studebaker Brothers Manufacturing Company catalog shows the essential features of the vehicle. The wheels were 4'6" in diameter and fitted with steel tires 2 ½" wide and ½ " thick. Hubs were wooden and were bound with steel bands. The axles were steel or wooden with steel bearings. On the shafts were large steel fittings that secured the breeching and collar chains of the horse. These chains are called "back and draft chains" in the Studebaker catalog. A third chain attached to this fitting went over the horse's back to hold the shafts up. The shafts were provided so that the horse could steer the cart or brake it by means of the breeching.

Tires

Tires from the dump cart wheels are large steel hoops made of ½" stock. The diameter is 56" on all but one set, which measures 36" in diameter. Width of the tires varies from 2 ½" to 3". These dimensions are generally consistent with the Studebaker model, which was available with a 3" tire at additional cost.

Hubs and Hub Bands

Old photos of artifacts on the Oregon Pacific show dump cart wheel hubs with spokes on the grade. The wooden parts of these artifacts hade apparently deteriorated, as have other wooden items. The steel bands that encircled the wooden hubs remain on the Whitewater Creek segment and the Pamelia Creek segment, however. The bands are 1/8" steel stock, 2 3/8" wide, and 8 ½" in diameter.

Axles and Skeins

Axles for the dump carts were made of 2" square steel stock or wooden beams of unknown size. The wooden axles were fitted with steel caps and skeins, which were the tapered bearings for the wheel hubs. Axles were found on the Whitewater Creek segment, the Lost Lake Creek segment, and Pamelia Creek.

Shaft Fittings

These fittings, which were used to attach the horse's chains to the shafts came in pairs bolted to each shaft. The design is quite distinctive and is shown in the catalog drawings.

Other Cart Fittings

Strap-iron fittings from the cart beds were found on the Whitewater Creek segment, the Pamelia Creek segment, and the Lost Lake Creek segment. Another distinctive fitting found on the Whitewater Creek segment is likely to have been associated with the dump carts, but its function is unknown at this time. Nothing similar to this fitting appears in the Studebaker catalog.

Artifact Group 3 - Tram Car Parts

Historic photos of railroad construction on the Southern Pacific system show that tram cars were used to move earth and rock as late as the 1920s. The tram cars ran on narrow-gauge rails. On the Oregon Pacific, the rails were wooden beams not unlike a 2" x 4" board set on edge. The surface that the tram wheels rode on was covered with a piece of strap iron that was attached to the wooden rail with screws. The screws had flat heads, which were recessed below the surface of the strap in countersunk holes. This strap iron was listed in the Pacific Hardware and Steel catalog as "Flat Track Iron--Punched and Countersunk, for Mines, etc."

Old photos of Oregon Pacific artifacts show tram carts in relatively complete condition, but the wooden parts of the carts have disappeared in recent years. Artifacts associated with the rails and trams were found on the Whitewater Creek segment and the Lost Lake Creek segments.

Track Iron

Steel straps appropriate for use on wooden rails were found on the Lost Lake Creek

segment. These appear in old photos of the site with the wooden rails still attached. The exact length of the track iron pieces is difficult to determine because only one end is exposed, but they exceed 20', which was a conventional length for steel rails. On other sites, short pieces of strap iron with the characteristic countersunk holes appear to have been used for other purposes.

Splice Plates

On the Whitewater Creek segment two piles of artifacts beside the grade contained pieces of strap iron apparently used as splice plates to bolt rails together end-to-end. These are 20 5/8" long, 1 3/8" wide, and 1/4" thick. The paired holes in the plates show signs of having been formed with a blacksmith's hot punch rather than a drill. This suggests that they were fabricated by the camp blacksmith rather than purchased as manufactured items.

Cart Axles

The axles for the dump carts were steel forgings 2" square with untapered bearings on the ends. Diameter of the bearings was 2" and total length of the axle was 44". The axle was found on the Lost Lake Creek Trestle segment.

Wheels and Axles

One set of two axles with wheels was recovered from the Oregon Pacific system. This is currently on display at the Des Chutes Historical Center in Bend. According to oral sources, these axles and wheels were used on the modified tram cart that ran on the steel rails laid near the summit of the Cascade Divide. Since these are the only known examples of dump cart wheels, we do not know whether the other tram carts had wheels the same size or smaller wheels

Steel Rail

Oral accounts, written accounts, and historic photos establish that the Oregon Pacific construction crews laid steel rail for a short distance near the summit. The "short distance" is variously reported as distances between 100' and one mile. A nearly contemporary report filed by the Northern Pacific Railroad survey crew in 1910 lists the rail as 40 lb. steel laid for 200'. In 1991, an anonymous oral source said that piece of the rail was hidden beneath a building at the Fish Lake Forest Service compound. The rail was 62.5" long and was marked as 30 lb. material.

Steel Pins

On the Whitewater Creek segment, a pile of steel pins was found *in situ* beside the grade. Unfortunately, the pile was disturbed by looters before a count of the pins could be made. The remaining pins are 1" in diameter and 13.5" long, with a distinctive T shaped head. They appear to be smith-made, but their use is unknown at this point.

Artifact/Feature Group 4 - The Stone Ovens

These features were found on the Tunnel Creek segment and were investigated by a PIT excavation project in 1995. Two dome ovens and one addition stone structure were found in the original group. A third oven was found during the 1996 grade survey. The ovens are similar to other stone dome ovens found on railroad and mining sites throughout the West. In an exhaustive study of the ethnic origin of these ovens, Archaeologist Priscilla Wagers concludes that while the ovens are frequently attributed to Chinese by oral sources, the group most likely responsible for the ovens were Italian or Greek railroad workers. Wagers notes that there is no evidence to associate the ovens with Chinese workers, but historic photos and contemporary accounts associate the ovens with Italians. Newspaper accounts establish that there were Italian workers on the Oregon Pacific in 1888 (*Oregon Statesman*, Jan. 25, 1889). Artifacts recovered at the Tunnel Creek camp site (18-04-453) and the Tunnel Creek segment (W723A) during the PIT project include items in the Nutrition Group (A) and the Architecture Group (C). Chronology of the artifacts suggests that the camp was used during more recent times.

Artifact Group 5 - Refuse at Hunt's Camp and Other Camp Sites

Camps associated with the Oregon Pacific include the following:

Confirmed Association with Railroad
- Tunnel Creek Camp Site #18-04-435
- Hunt's Camp Site (no FS number , SE 1/4 sect. 30, T. 13 S., R. 7 ½ E.)

Possible Association with Railroad
- Nutmeg Road Site (no FS number, NW 1/4, sect. 3, T. 13 S., R. 7 E.)
- Lost Lake Creek Camp Site #07-300H area A

Flat House Site #07-410h

The two large camp sites--Hunt's Camp and the Tunnel Creek Camp--have the clearest associations with the construction of the Oregon Pacific. Generally, these camps have a scale that seems consistent with housing and feeding an industrial work group. Smaller camps would have been used by survey parties during the location of the railroad route.

There is some question whether the small camps would have been used by the construction crews, however. The specialized needs of the construction crews included project coordination, housekeeping and cooking, horse management, tool and equipment maintenance, blasting powder storage and use, and blacksmith services for drills and other implements. In addition to the survey and construction of the railroad, the Santiam Pass area was also used by people engaged in livestock grazing and recreation. These activities required camping, and the smaller camps may be associated with grazing or other activities.

Most of the artifacts found on the camp sites are in the Nutrition functional group. These items include stove parts, cans, bottles, ceramics, and the remains of one cast-iron kettle.

Stove Parts

Rusted parts from iron or steel stoves are found on the surface of sites 07-410H (Flat House), 07-330H(A) (Lost Lake Creek Camp), and the Nutmeg Road Site. The stoves on sites 07-410H and 07-300H are incomplete and badly deteriorated, but seem to have been cast-iron stoves. This material indicates a heavier, less portable appliance, and one appropriate to a larger camp. The stove remains (if they are stove remains) on the Nutmeg Road site are of thin sheet steel, which is used for the portable "sheepherder" stove design frequently used in tents.

Bottles

Bottle fragments were found on sites 07-410H (Flat House), 18-04-435 (Tunnel Creek), and Hunt's Camp. The bottle on the Flat House site had distinctive embossing, and could be identified as one used for Jamaica Ginger, an extract of ginger bottled by Merten, Moffit, and Company during the 1880-1889 period (Bergland 1993). This date is consistent with Oregon Pacific construction, but is earlier than we would expect for grazing or recreational activity in the area.

Cans

Cans were found on the sites 07-410H (Flat House), 18-04-435 (Tunnel Creek) and Hunt's Camp. In inventory of the cans appears in the appendix. The cans on Hunt's Camp are widely distributed over the site in scatters (1 - 7 cans) and in larger accumulations. Distinctive hole-in-top cans with crossed slash openings are characteristic of late 19th century manufacture and use.

Kettle

The broken base of a distinctive cast-iron cooking vessel was found on the surface of the Nutmeg Road site. The artifact was in a pile or berm of earth disturbed during recent logging on the site. Associated artifacts on the site include sheet steel stove fragments, but nothing else was found on the surface of the area. A manufacturer's catalog from the Dover Stamping Company dated 1869 shows the distinctive kettle design with three legs and a recessed area at the base. The base of the kettle was apparently intended to fit into a stove top opening.

DESCRIPTION BY QUADRANGLE

Idanha Quad Summary

Miles of grade on historic maps	4.7 miles, Boulder Ck. To east quad line		
Stations on 1900 map	Station 1963	Boulder Ck.	1450'
	Station 1700	quad line	1775'
Gradient as mapped	325' in 2.63 miles = 123'/mile (>2%)		
Miles of grade confirmed	Total 2.1 miles		
	Segment W79A	1.95 miles in "D"	
	Segment W716A	193 yards in "A"	
Percentage nominable	7 %		

Idanha Quad Narrative

We began the survey at Boulder Creek near the community of Idanha because of its historic position as the end of the track. Oral sources and some secondary sources mention that the Oregon Pacific laid steel to Boulder Creek, that the steel was removed after 1895 by the Hammond Lumber Company, and then replaced after 1907 by the Southern Pacific. Evidence of track hardware on the grade at Boulder Creek indicates that steel rails were in place on the grade there, which remains well-defined and not reused. There is no evidence of trestle at Boulder Ck., nor evidence of grade west of Boulder Creek through the mill and industrial sites south of the highway. Further east, private houses and other structures have been built on the grade route. East of Idanha (which is an unincorporated community), are the extensive log decks of the Green Veneer Company, the one remaining lumber mill in the upper North Santiam Valley.

At the point in the NW 1/4 of section 23 where McCoy Creek crosses the grade route, some recent erosion reveals a portion of the elevated grade incorporated into the highway shoulder. This point begins segment W79A, which continues for 1.95 miles to the east. This

segment is "D" class grade. The highway has been built over the grade, but the course and gradients of the railroad feature have been preserved in the highway. Highway gradients are even on this segment and measured <2%.

At the entrance to the Whispering Falls Campground, the highway curves east off the grade, which enters the campground running parallel to the highway. The grade is complete on this segment, 10-12' wide, and 3' above the ambient terrain. The paved campground road crosses the grade at one point but does not use its route. Toward the east end of the segment, there is some sign of intermittent motor vehicle use. At the end of the segment, the highway intersects the grade and usurps its route east.

From the east end of segment W716A to the east boundary of the quad, highway construction apparently removed the grade. Highway curves and gradients here do not meet railroad standards.

Mt. Bruno Quad Summary

Miles of grade on historic maps	6.9 miles
Stations on 1900 map	Station 1700 west quad line 1775' Station 1350 near Independence Ck. 2225'
Gradient as mapped	450' gained in 3.5 miles = 128'/mile (>2%)
Miles of grade confirmed	Total 0.64 miles
	Segment W723A 378 yards in "A" Segment W81 625 yards in "A" Segment W725A 135 yards in "B"
Percentage nominable	100 %

Mt. Bruno Quad Narrative

The Mt. Bruno Quad contains three important segments of the grade and the Tunnel Creek camp site. The grade crosses from the north side of the river to the south side near Tunnel Creek (seg. W723A) then ends on the south side at the end of segment W81. It resumes briefly on the north side of the river near Pamelia Creek. This portion of the route was built in 1889, after the original plan for a tunnel on the north side was changed. By bridging the stream twice to avoid the tunnel, the Oregon Pacific saved construction costs and time. Tunnels required expensive excavation and timbering, while short bridges or trestles could be built with timber available on site using ordinary workers and equipment. The projected tunnel was to have been built near Tunnel Creek, which may account for the otherwise inexplicable name of this seasonal stream.

The first is segment W723A, the grade below the Tunnel Creek camp site. The highway is built on the grade route west of this segment, but it curves to the north in the NW 1/4 of section 20 (T. 10s, R 7e) to reveal the grade below it. The segment is well built, with an elevation of 6' above ambient terrain and a crown averaging 14'. One of the three stone ovens and an additional stone structure were built beside the grade. One of the remaining ovens is above the grade at the

camp site, and the third is above the grade at the east end of the segment.

Segment W723A has one washout near its west end. The Tunnel Creek crossing has eroded. Borrow pits form a ditch along the north side of the grade. This ditch apparently channeled runoff from the hillside along the grade to culverts which carried it under the grade and into the river. Only one culvert is currently visible. The material of the grade is a stony fill, and few trees have grown through it. At the east or distal end of the segment a borrow pit has supplied fill for the bridge approach. Here the grade is elevated 14' above the river.

This segment is in "A" class, as it was completed and not subsequently re-used. There is evidence of logging, however, with possible use of the grade as a skid trail. A steel "grouser" from a track-laying tractor is on the grade, as are several cables.

Across the river from the distal end of segment W723A lies segment W81. The bridge that was to have connected these two portions of the railroad was not built, but it would have been a modest structure, perhaps 500 feet long. Segment W81 begins about 300' from the river with a bridge approach elevated 12-15' above the river level. This setback apparently allowed for seasonal flooding of the low-lying river bank.

The proximal end of the segment has two groups of artifacts, mostly associated with dump cars. These include steel tires, steel axles, hub bands, and running gear. Further south, toward the distal end of the segment, additional artifacts associated with construction were found. Information about the artifacts on this segment and the ARPA violation that occurred here are appended to this report.

At the distal end of segment W81 the grade ends at a rocky promontory overlooking the river. Construction further east along the south bank of the river would have required significant blasting to remove the rock. Surveys of the west bank of the river reveal no additional work on the route.

This segment was completed to high construction standards, as was segment W723A. After the elevated approach the bridge, the grade runs southeast onto a bench, then after 130 yards it enters a cut that eventually reaches a point 20' below the ground level. Material from this cut was used to provide fill for the bridge approach. Beyond the cut, the grade runs southeast along the bank of the river, raised 6' above ambient terrain. Fill for this part of the grade was provided by blasting the sidehill and moving the material onto the grade. A well-defined trail connects the grade to the borrow area.

The third segment on the Mt. Bruno Quad--segment W725A- is a very short segment of grade (135 yards) under construction on the north bank of the North Santiam River near Pamelia Creek. This part of the system was the north side approach to the second bridge across the river. Between Whitewater Creek and Pamelia Creek, the railroad route was on the south bank; at Pamelia Creek it crosses from the south bank to the north bank for the rest of its route (as mapped).

The bridge that was to have been built here would have spanned the river at a height of >35' to reach the north bank, which is 20' above the river. The approach was complicated, requiring an elevated ramp to the bridge level, and then plunging into a cut on the riverbank that would have been >15' deep. Pamelia Creek and a second unnamed (and unmapped) creek would have required trestles, and then the grade would have required a massive fill immediately southeast of Pamelia Creek. In this case, the logic of the builders seems clear. Here was a difficult spot on the railroad that required extra care and thought in its construction. While the main crew labored on the Whitewater Creek segment, a second crew went ahead nearly two miles on the route to begin working on this complex part of the project. Some form of road or trail no doubt connected this site with the Tunnel Creek camp site, which was also on the north side of the river. Construction crews today often use the same strategy when building linear systems.

Although segment W725A is short, its uncompleted state gives us a very useful glimpse of construction practices. The excavation for the cut was done in two levels, like terraces into the hill. Similarly, the fill at the proximal end of the segment was being built in two levels, one on the ground and a second level on top of the first. Artifacts on the segment include dump cart tires and hub bands, as well as a set of axle bearings. This short, isolated segment appears not to have been disturbed by souvenir hunters.

Marion Forks Quad Summary

Miles of grade on historic maps	9.8 miles
Stations on 1900 map	Station 1350 near Independence Ck. 2225' Station 850 south quad line 3085'
Gradient as mapped	860' in 9.8 miles = 88'/mile (<2%)
Miles of grade confirmed	none
Percentage nominable	none

Marion Forks Quad Narrative

The Marion Forks Quad brings the railroad route south along the North Fork of the Santiam river to its source in Big Meadows. This portion of the route offers gentle gradients, with an average of only 88 feet for each railroad mile. The route chosen by Eccleson and his successors follows the river rather closely in a steep-sided canyon that offers little choice beyond the bench on the east side of the stream. At the confluence of Marion Creek and the river, the route moves east to cross the creek 0.2 miles east of the river. In sections 20 and 29 (T.12 S., R.7 E.) the mapped route swings east of the river again to negotiate some difficult terrain.

Extensive survey of the mapped route and other linear features observed on aerial photos or in the field revealed no grade in classes "A" or "B" on this quad. Segments of grade could have been removed by highway or forest road construction. When that is the case, however, some evidence of the original grade is usually visible. Highway 22 does not follow railroad standards of curvature or gradient. Portions of the route could have been cleared of timber, but stumps characteristic of the 1887 or 1889 clearing work were not observed in appropriate patterns along the mapped route.

In the SE 1/4 of section 8, (T. 12 S., R. 7 E.) a linear feature leaves the highway and loops to the west for 0.25 miles. This feature, numbered W76G, is now a seasonal watercourse connected to the river during the spring runoff. It has no earthwork characteristic of Oregon Pacific grade. It has, however, some stumps that seem to antedate the construction of Highway

22 in 1936. The feature may be a remnant of an early road, or it may be a old oxbow of the river. In the absence of other railroad-related features on this part of the route, it seems unlikely that it was part of the railroad system.

As similar feature can be found on the top of the pass, numbered segment W76B. This segment is classified as "C" because while it has no earthwork but shows evidence of use during the construction period. The evidence of use is that the segment connects to better-defined grade segments and is continuous with them. In context, then, segment W76B can be accepted as a "C" class linear resource, but without any context, segment W76G is difficult to accept.

Ar the south end of the Marion Forks quad in section 20 (T. 12 S., R. 7 E.), the mapped grade route swings east of the river to a slightly higher elevation. Forest Road 171 approximates this route. Extensive examination of the road and adjacent areas failed to confirm any activity during the historic period, however.

Coffin Mountain Quad Summary

Miles of grade on historic maps	0.7 miles possible on GLO maps
Stations on 1900 map	not shown on 1900 or 1919 maps
Gradient as mapped	60' in 0.7 miles = 85'/mile (<2%)
Miles of grade confirmed	none
Percentage nominable	none
Other linear features	-Highway 22 and right-of-way -Unnumbered LF along north bank of the North Santiam River at the highway crossing (no section grid on USGS map)

Coffin Mountain Quad Narrative

Note: This portion of the Cascade Range was not surveyed by the USGS, and the township, range, and section lines, when shown, have major adjustments. The Coffin Mountain Quad does not have a section grid for this part of the route.

This quad contains a short 0.7 miles of the North Santiam river, which is a possible route for the grade according the GLO maps. The 1900 and 1919 maps show the route to the east, off the quad. Survey of the route along the river did not locate any grade. An unnumbered logging road follows the north bank of the river from the Highway 22 crossing for about 0.5 miles. The earthwork on this road is not characteristic of Oregon Pacific grade, and gradients and curvature of this road are well beyond railroad limits.

Echo Mountain Quad Summary

Miles of grade on historic maps	<0.5 miles possible
Stations on 1900 map	610-660 (Section lines on 1900 map do not match section lines on USGS quad)
Gradient as mapped	<40' variation in 0.5 miles
Miles of grade confirmed	none
Percentage nominable	none

Echo Mountain Quad Narrative

This quad contains the western edge of section 32 (T. 12 S., R.7 E.) which appears on the 1900 map as a part of the grade route. Survey of the grade as mapped and of linear features in the western portion of section 32 failed to add new grade to the inventory. It must be acknowledged, however, that this portion of the route is very rugged and either densely forested or logged. A short, disconnected segment of completed grade like segments W725A or W723B could easily escape notice or be damaged by logging

Santiam Junction Quad Summary

Miles of grade on historic maps	11.6 miles 1900 map 3.7 additional from GLO map	
Stations on 1900 map	750 NW quad line 3275' 160 SE quad line 4325'	
Gradient as mapped	1050' in 5.9 miles = 177'/mile (3.3% grade)	
Miles of grade confirmed	3.4 miles	
	Segment W723B	65 yards 'A"
	Segment W723C	340 yards "C"
	Segment W712B	1904 yards "A"
	Segment W712C	614 yards "C"
	Segment W712A	770 yards "C"
	Segment W710D	195 yards "A"
	Segment W710C2	1180 yards "B"
	Segment W710C	117 yards "A"
	Segment W710B	763 yards "B"
Percentage nominable	100%	

Santiam Junction Quad Narrative

This part of the system was the most challenging for the location engineers and for the builders as well. It was also the most challenging for the survey crew. Construction began at the summit in February of 1887 and continued through December of 1887, when the contractor ended work for non-payment. Work on the summit resumed in July of 1889 and ended in December of 1889.

In the northern portion of this quad--which is the distal end of this part of the system-- the route ascended the North Santiam River into Big Meadow, where the stream originates. From this point, two routes appear on historic maps. The General Land Office map shows the route

swinging due south from Big Meadow through sections 29 and 32 (T. 12 S., R. 7 E.), then moving southwest through sections 5, 9, and 16 to end in section 15 (T.13 S., R.7 E.). The part of the GLO route to section 15 could have been built with no more climbing than 160' in 3.5 miles. This gentle ascent would have been ideal for railroad construction, but a grade built on this route would have had to climb over 500' in section 15 to meet the grade on the pass, which averages 4200'. This would have produced a gradient of nearly 10%--well beyond main line railroad standards.

The other route from Big Meadow approaching the pass was mapped on the 1900 and 1919 plans. This brought the railroad from Big Meadow west into section 32 (T.12 S, R.7 E.) for a loop to the west and then a serpentine curve into section 4 (T.13 S., R.7 E.). East of section 4, in section 3, the grade curved to the south, climbing steadily to its target altitude of 4200' in section 14. This second route was longer and required trestles and fills to negotiate some difficult terrain, but its gradients did not exceed 2%, as measured on the extant portions.

The 1900 route includes the most extreme terrain of the Oregon Pacific's eastern division. According to the 1919 plan, the curve that brought the railroad to a southerly course in section 3 (T.13 S., R.7 E.) would have 102 degrees of total curvature in 0.10 mile. The course of the grade in sections 3,10, and 14 followed the side of a massive ridge, crossing several watercourses and some deep canyons.

Survey of the GLO route revealed no completed grade or clear signs of grade construction. On the 1900 route, however, at a point in section 3 (T. 13 S., R. 7 E.) 1.5 miles east of the GLO route, a small isolated segment of completed grade remains. This is segment W723B. This evidence indicates that the 1900 plan was based on the original survey and that the route it shows is the correct one. The GLO route may have been based on an earlier survey, but it was not viable. Segment W723B was unaccountably built 2.5 miles beyond the end of grade work on the approach to the pass. The segment was built on relatively easy terrain, with no rock work necessary, and no challenging cuts or fills. The grade is well-defined, however, with a 12' elevation and a crown width of 14'.

In the center of section 14, the grade begins its course at a steady elevation on the sidehill that will bring it east across the quad to the crossing of Lost Lake Creek in section 21 (T.13 S., R.7 ½ E.). This portion of the grade from section 14 to Lost Lake Creek was reasonably complete at the end of the 1889 season, with some parts remaining under construction, but most segments ready for the ties and rail. It is marked "Old Railroad Grade" on USGS maps. The bridges and trestling, of course, would have required significant expense and work beyond the

grading.

The route from section 14 to the summit offers grade in several stages of completion. Segment W712B, in sections 14 and 13 is a long segment of well-finished grade. Elevation above the ground averages 6', and the crown width is 12'. The segment immediately east of this is segment W712C, which is incomplete, with signs of construction throughout. At the east end of this segment the grade ends in a steep ridge that would have been finished as a very deep cut or a short tunnel. Preliminary excavations have been made, but the rock work was not finished. Farther east, segment W712A is in "C" class, with clearing and some preliminary earthwork, but no finished grade. This segment literally hangs on the side of a rocky cliff overlooking Lost Lake. Farther east, segment W710D is completed and lies on a relatively easy piece of ground. Segment W710C2 is another segment under construction, with several patches of cleared but unworked ground.

The grade between what is now Santiam Junction and the pass offers the best integrity on the Oregon Pacific system. It is clear from the evidence here that the builders worked in a pattern that seems far from the systematic job that we might expect. Some segments were completed while others nearer the starting point--which was the pass itself on this portion of the system--were hardly begun. The work on segments W723B and C is very hard to understand, since these are located 2.5 miles from the rest of the grade and on easy terrain. In some respects, this segment is analogous to the segment at Pamelia Creek on the other end of the system. The builders may have moved ahead for some logical reason, or they may have been ordered to these locations to inflate Hogg's claims about the amount of grade completed.

Three-Fingered Jack Quad Summary

Miles of grade on historic maps	1.5
Stations on 1900 map	Station 0 Cascade summit 4600' Station 175 Near Lost Lake Creek 4350'
Gradient as mapped	250' in 1.75 miles = 2.7%
Miles of grade confirmed	Total 2.63 miles
	Segment W710A 558 yards in "A" Segment W711A 136 yards in "B" Segment W 711B 190 yards in "A" Segment W97A 1496 yards in "D" 358 yards in "B" 2USegment W97B Segment W97D 572 yards in "D" Segment W97 E 63.7 yards in "B" Segment W99A 907 yards in 'B" Segment W99B 352 yards in 'A"
Percentage nominable	60 %

Three-Fingered Jack Quad Narrative

This quad represents the farthest extension east by the Oregon Pacific. Some grade may have been built in Malheur County, near the Idaho border, but that grade has not been confirmed. The two plans of the Oregon Pacific that seem to represent the most accurate work--i.e. the 1900 and 1919 plans--show the grade extending no farther east that the Cascade summit, which is marked as station 0 on both plans. Evidence on the ground, however, includes six segments of grade in various stages of completion extending three miles east of the Cascade summit.

Contemporary USGS maps of the Three-Fingered Jack quad show the grade extending east of the summit, but older USGS maps based on the 1929 15' map do not show the grade.

Evidence from the field has shown that some of what the USGS maps label "Old Railroad Grade" is in fact the Hortense Lake trail. Early Forest maps showed the grade, but in a different position than the current USGS maps.

A very useful report on the Oregon Pacific was prepared by a member of the Oregon Trunk Railroad survey party in 1910. The writer comments on having a plan of the railroad, and being in an area where the earth was covered by "loose" sand and dirt. This was almost certainly the approach to the summit in section 31 (T. 14 S., R. 8 E.), since no other areas near the summit could be described as containing "loose" material. This area is shown on no extant plan of the system, however, so we must assume that anther plan of the system exists and was in the possession of the Oregon Trunk party.

Beginning at the western border of the quad, which is actually the distal end of this portion of the railroad, we find two short segments of grade that bring the railroad from the forest in the Lost Lake Creek drainage onto the rocky slope of Hogg Rock. These are segments W711A and W711B. Segment W710B then arcs around to the western face of the Butte, but it is on the Santiam Junction quad.

The route chosen by Col. Eccleson brought the grade up onto the Butte and around its southern face. The railroad route is higher on the Butte than the highway route, allowing for a more even gradient. This route also placed the railroad at the top of several troublesome slide and avalanche zones that frequently block the highway in the winter. By any measure, the Oregon Pacific grade across the face of Hogg Rock is one of the most dramatic pieces of railroad engineering and construction in the West.

Segment W710B, on the west face of the Butte has the bulk of the hand-laid stone retaining walls that distinguish this part of the route. The segment to the east of this one, segment W710A brings the grade around the south face of the Butte and back to ground level at 4600'. The grade ends at the crossing of highway 22. Although the highway construction in 1936 may have damagers the grade here, the evidence of the abrupt ending of segment W710A suggests that there was no additional grade built on the segment.

To the east of the intersection of Highway 22 and the Hoodoo Road (FR 2690) segment W97A extends east for nearly one mile. This portion of the route was not completed as grade, for there is no earthwork on it. It does connect two grade segments, however, and was likely a grade route cleared and perhaps used as a supply route for the construction parties on the Butte. In more recent times, it has been used by motor vehicles. East of segment W97A is segment W97B, a short segment of completed grade. This segment conforms to the usual dimensions of Oregon

Pacific grade. It is 4' to 6' elevated above a wet meadow and averages 12' wide at the crown.

At its east end, segment W97B meets FR 900, which was the old road from Douthit Springs to Big Lake. This road was apparently in use before the completion of highway 22 in 1936. The USGS quad shows the road connecting through to the Santiam Wagon Road near Big Lake. In August of 1936, Ranger Robert Eccles from the McKenzie District drove the road from Douthit Springs south, recording landmarks and mileages along the way. The crossing of the Oregon Pacific grade is noted at a point near the end of segment W97B.

As he continues south on the 900 road, Ranger Eccles remarks that the road is on the grade route for nearly ½ mile to a sandy area. This portion of the road is marked as railroad grade on the USGS maps, but there is no evidence of earthwork, and the gradients and curvature of the road exceed railroad standards. Immediately south of the sandy area, however, the road is clearly located on grade. On this segment (W97D), the earthwork and borrow pits remain visible, and gradient and curvature are consistent with Oregon Pacific standards.

At the east end of segment W97D, the grade reaches a trestle site which spans a seasonal watercourse. The 900 road turns abruptly east at this point, leaving the grade. East of this segment, across the watercourse, is a short segment of grade under construction. This segment would have cut through solid basalt for 200 yards to reach the next segment, which extends east across a sandy esker. This segment, W99A has some rudiments of rock work but is mostly scraped up earth and sand. There are two trestle sites on the segment. Segment W99A has not been re-used or damaged, but was probably left in an uncompleted state by the builders. East and south of segment W99A is W99B, which was completed. This final segment is a well-built segment of Oregon Pacific grade, with good elevation and drainage, and a crown width averaging 12'.

The east end of segment W99B is the firebreak for a large forest firs which occurred in 1965. Although the USGS map shows the grade extending through the fire area, evidence on the ground does not confirm it. The pattern of fire suppression, salvage logging, and especially machine re-planting has changed the earth in the fire zone to the point that even if grade was built there, it would be very difficult to find. The route shown on the USGS maps may well have been grade through section 31, (T. 13 S., R. 8 E.). South of that, however, the terrain is not appropriate for grade construction. The route marked as grade south of the fire, in section 6 (T. 14 S., R.8 E.) is the Hortense Lake trail, which is shown on the 1929 USGS maps as the Pacific Crest trail. It is too steep for a grade route.

The grade construction may have stopped in 1889 at the end of segment W99B, or it may

have extended south and east. The most likely route east seems to be the route of the Santiam Wagon Road south of Cache Mountain.

SECTION 8: NARRATIVE STATEMENT OF SIGNIFICANCE

Biographical Sketch of Thomas Egenton Hogg

One hundred years after his death in 1896, Thomas Egenton Hogg remains an enigmatic figure in Oregon history. He is generally recognized as a "frontier" character, drawn to Oregon in the aftermath of the Civil War, connected to financial markets in Europe and New York, and associated with one of the many railroad projects that blossomed during the 1870s and 1880s. His contemporaries had sharply divided opinions about Colonel Hogg, as he styled himself. For Wallis Nash, an Anglo-Oregonian jurist and writer who was himself associated with Hogg's business ventures, the Colonel was a visionary whose greatest project--the Oregon Pacific Railroad--failed because of the envy of lesser men.[1] For Joseph Gaston, another Oregon voice from the *fin de siecle*, Hogg was "a promoter of great promise and little performance" who "failed and died" leaving a "bankrupt road" and losing 33 million dollars of his investors' money.[2]

Although Wallis Nash knew Hogg and his brother, William Hoag, for at least 20 years, the information that Nash leaves us about Hogg's background is scant. Nash says that Hogg served in the Confederate forces, that he had been imprisoned at Alcatraz in San Francisco Bay during the war, and that he had lost his business and property in New Orleans. His brother William, who spelled his name Hoag, was a Northern sympathizer and was in the construction business in San Francisco. After his release from prison, Hogg had ventured to Oregon on his brother's advice, and had begun organizing the Oregon Pacific Railroad.

The details that Nash supplied seemed unlikely until historian Keith Clark

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[1]Wallis Nash, *A Lawyer's life on Two Continents,* (Boston: Gorham Press, 1919) p. 171ff.

[2]Joseph Gaston, "Genesis of the Oregon Railway System," *OHQ* vol. 7, 1906, p. 129.

confirmed them in an inspired piece of scholarly detective work.[3] According to Clark's reconstruction of the details from military records and other sources, Thomas Egenton Hogg was born in Baltimore in 1828. He moved to Louisiana in 1861 and apparently entered the Confederate service soon after. In November of 1863, he and five others boarded the American schooner *Joseph L.Gerrity* as passengers in Matamoros, Mexico. According to the account Clark found in White's *Official Records of the Union and Confederate Navies in the War of the Rebellion*, Hogg and his associates then seized the schooner, stranded the crew on the coast of Yucatan, and sold the cargo in Belize. The original crew had contacted British authorities in the meantime, and Hogg fled to Nicaragua and Panama to avoid capture.

In 1864, Hogg proposed another similar venture to the Confederate consul in Havana. The Confederate Secretary of the Navy approved the scheme and commissioned Hogg as an acting Master in the C.S.N. The date of his commission suggests that Hogg and his cohorts were acting without official sanction in their first escapade. The second time was decidedly official, however, with Hogg ordered to capture an American steamship, arm it, and "cruise against the enemy in the Pacific" as a Confederate privateer. With official orders in hand and a Confederate flag in his luggage (both suitably concealed), Hogg and a company of six embarked on the steamer *San Salvador* in Panama, bound for San Francisco. The officers of the vessel had been alerted to Hogg's plans, and they requested help from the Union Navy. Hogg and his group were captured, and tried in San Francisco by a military tribunal. Hogg was first sentenced to hang, but the sentence was later reduced to life imprisonment. At the war's end, he was released from Alcatraz.

Nash relates that Hogg "spent some time in hospital recovering fully from wounds and sufferings" resulting from his imprisonment.[4] He learned that his property in New Orleans was gone, and that he was "at loose ends" in every respect. He then re-established cordial relations with his brother William and traveled to Oregon to look over prospects for developing wagon road grant lands. The fledgling Willamette Valley and

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[3]Keith Clark, "T. Egenton Hogg: A Footnote," *OHQ*, vol. 84, Fall, 1983, p.301.

[4]Wallis Nash, *A Lawyer's Life on Two Continents*, (Boston: The Gorham Press, 1919) p. 142.

Coast Railroad Company in Corvallis caught Hogg's attention. Here was the beginning of a railroad that could reach from the Pacific Coast east across the continent to connect Oregon to the rest of the United States. The railroad could served the rich agricultural lands of the Willamette Valley and reach across the ranching and mining regions of eastern Oregon and Idaho. William had supplied his brother with an introduction to "the old banker" in Albany, Oregon, and Nash tells us that Hogg was well-received in that community. Hogg then returned to San Francisco to seek financing from the "San Francisco house of the French bankers" who owned the "big land grant."

Hogg then plunged into a twenty-year period of his life that was dominated by the creation and eventual collapse of the Oregon Pacific. Contemporary records do not indicate whether Hogg had any family beyond his brother William, or any circumstances of his life. Nash records that he was "nervous" and energetic, slight, and possessed of piercing blue eyes. Chauncy del French, who worked on the Oregon Pacific, and who may have confused the two brothers, notes that the Colonel was

> ...a bundle of directive energy. Twenty hours was his usual day's work. No detail of construction or material was too insignificant to escape his sharp eyes. No man's pride was sacred to his sharp tongue. For a small man he nursed some of the largest plans conceivable.[5]

After 1890 Hogg spent most of his time in New York City, searching for funding and perhaps avoiding the increasingly negative press in Oregon.. Then in 1896, at the age of 68, he died of apoplexy while riding a streetcar in Philadelphia. According to historian Randall Mills, Hogg still held $3,000,000 of the Oregon Pacific bonds and was still trying to regain control of his railroad.[6]

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[5]Chauncy del French, *Railroadman*, (New York: Macmillian, 1938) p. 119.

[6]Randall Mills, *Short Lines Down the Valley: Some Short lines of the Oregon Country*. (Palo Alto: Pacific Books, 1950) p.68.

Oregon Railroads in the 1870s and 1880s

Hogg's decision to start a new life in Oregon in 1870 was by no means unusual. During the 1870s and 1880s, Oregon was booming. These decades were critical periods in Oregon's development and, by extension, the development of the Pacific Northwest as an economic and cultural region. Prior to the Civil War, the Pacific Northwest was essentially an island territory of the United States. Access to the region was best obtained by ship; the journey across the continent was excruciating and impractical. Then, in the early 1860s, the Federal government "chartered" the transcontinental railroads--the Union Pacific, the Central Pacific, and the Northern Pacific. The terms of the federal charter were that the railroads would be granted lands from the public domain to help finance their progress across the country. The grant lands could be mortgaged, sold, or developed as the railroad financiers deemed necessary.

In 1869, the Central Pacific and Union Pacific joined to cross the continent from California to the Midwest. The Northern Pacific, which was to tie Oregon to the rest of the nation, did not meet with such success. The route was harder, and the country that lay between Oregon and Minnesota, where the railroad began, did not offer as much traffic. Jay Cooke, the first financier of the Northern Pacific, bonded the railroad to the level of $50,000 per mile. This debt was secured by track and by grant lands, but Cooke was bankrupt by 1873, and his railroad reached no farther east than Bismark, North Dakota.

When the Northern Pacific stalled, a race developed among several other railroads that planned to provide transcontinental service to Oregon and Washington. Whichever railroad was the first to provide transcontinental service would enjoy an enormous advantage. One plan was the Oregon Central, which would run south from Portland through the Willamette Valley and eventually link up with the Central Pacific or Southern Pacific in California. This was practical, because unlike the Northern Pacific, the Central Pacific/Union Pacific transcontinental route across the country was a reality. Another plan would bring a line from Portland east through the Columbia Gorge and eastern Oregon to join the Union Pacific in Wyoming. This plan was also attractive because, again, the Union Pacific was complete while the Northern Pacific was not. Finally, there was Colonel Hogg's Oregon Pacific plan, which would build a transcontinental railroad

through the center of the state from Yaquina Bay to join the Union Pacific in Idaho. Again--at the time of its conception and especially after Cooke's bankruptcy-- the Oregon Pacific plan was perceived as practical because the Northern Pacific seemed unlikely to succeed. If Oregon was to have transcontinental rail service, common sense suggested that it would have to connect to the Central Pacific/Union Pacific route.

As the 1870s wore on, the route south through the Willamette Valley won a Federal charter and a land grant of 5,000,000 acres of prime agricultural and timber lands in the Willamette, Rogue, and Umpqua Valleys. The financier of this railroad was Ben Holladay, a colorful entrepreneur from California. Holladay's Oregon and California Railroad reached south from Portland as far as Roseburg by 1872, but there it stalled for 10 years while Holladay and others scrambled for financing.

To finance construction in Western frontier, railroad builders had to tap the great financial markets of the world. These were London and Paris, and to a lesser extent Berlin and New York City. Grant lands could be sold to settlers or to development companies, but they sold slowly. The international market was flooded with cheap real estate in unlikely locations in Oregon, Washington, Montana, and other sparsely-settled states. Even the superb agricultural lands in the Willamette Valley that the Oregon and California Railroad offered went begging. In practical terms, then, the railroads needed to sell bonds to foreign or eastern investors if they were to raise capital. When the bondholders lost patience with the railroads' management, they could exercise their rights as senior creditors.

In 1873, the German bondholders sent Henry Villard, a journalist from Berlin, to Oregon to represent their interests in the stalled Oregon and California Railroad. Like Cooke, Holladay, and Hogg, Villard had no background in the railroad business, but he had a full measure of whatever it took to become a railroad financier in 1873. He got control of the Oregon and California for the bondholders and operated the railroad in the Willamette Valley. Later, through financial expedients that strain the imagination, Villard gained control of the Northern Pacific and pushed that stalled giant into a frantic construction program. In the early 1880s, the Northern Pacific came to life, building across the Plains and through the Rocky Mountains. The Northern Pacific was complete from Portland and Tacoma through to the Midwest in 1883.

Genesis of the Oregon Pacific

The Oregon Pacific began life as a rail link between Corvallis and Yaquina Bay. The logic of the route was that the Willamette Valley farmers could send their products to Yaquina Bay, where they could be shipped to distant markets. Yaquina Bay was not a major port in 1870, but it had promise. It was certainly more convenient to the Willamette Valley than Portland. In 1872, Hogg and his associates incorporated the Corvallis and Yaquina Bay Railroad Company. The firm was reorganized as the Willamette Valley and Coast Railroad Company in 1874, and began construction in 1877. As Hogg tapped financial markets in London and New York, he expanded his plan to include the transcontinental link east to Idaho--probably first projected over the Santiam Wagon Road route. In 1877, Hogg met Wallis Nash in London. Nash visited Oregon and was mightily impressed with the country. He joined Hogg's project and wrote about Oregon for British readers.

In 1871 the Oregon and California reached Corvallis, providing rail access to Portland and cutting into Hogg's potential market. Hogg responded by incorporating the Oregon Pacific Railroad Company to embody his transcontinental plans. At the same time, an unrelated event occurred which was to have a profound impact on the Oregon Pacific. Prior to this time, the exact route across the Cascades that the railroad would follow was probably somewhat vague in Hogg's mind. The two passes available were the Santiam Wagon Road pass and the route up the North Fork of the Santiam and Minto Creek. This route is generally known as Minto Pass. Neither of these was a very promising railroad route. The Federally-sponsored Pacific Railroad survey in 1855 had rejected the Santiam area for railroad construction.[7] Then, according to John Minto, on one of his annual rambles through the mountains, Judge John B. Waldo discovered an easy route across the Cascades in the summer of 1880.[8]

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[7]Henry Larcom Abbot, *Pacific Railroad Reports, Vol. 6*, (Washington DC: Senate Ex. Document Series, 1857).

[8]John Minto," Minto Pass: Its History, and an Indian Tradition," *OHQ*, Vol. 4, Sept. 1903, p 246. Minto may be in error here, because Judge Waldo does not record his discovery in his diary for that summer. See Gerald Williams, ed., *Judge John Breckenridge Waldo: Diaries*

In the spring of 1881, Marion County commissioned L.S. Scott, George Downing, John Minto, and surveyor T.W. Davenport to search for this route. Their survey revealed that the while Minto Pass reached an altitude of 5,536' above sea level, the new route reached only 4,911'. Minto relayed the information to the Corvallis and Eastern railroad, and Hogg sent Col. Eccleson, the railroad's chief civil engineer, to make a formal railroad survey of the new route. This survey required Eccleson and his party to "locate" the route--i.e. to determine the most advantageous access to the pass and to plan out the grades, curves, and other engineering details. Unfortunately, we do not have Eccleson's original survey, but field evidence shows that a subsequent map dated 1890 is based on Eccleson's work for the Oregon Pacific.

The route across the Cascades that Waldo, Minto, and Eccleson had found was truly spectacular. The grades were all under 2% and the curves less than 10 degrees/hundred feet. This was a better route across the Cascades than any in Oregon--including the Willamette Pass route used by the Southern Pacific in 1926. It is hard to know what Hogg's response to this piece of good fortune would have been. Here was a tangible asset that no amount of money could have bought. It seems likely that the discovery of what was soon named "Hogg Pass" set him firmly on his course across the mountains.

For the next two years, the Oregon Pacific built slowly toward the coast while at the opposite end of the state the larger railroads pushed towards their transcontinental connections. Then, in 1883, the Northern Pacific connected across the continent while the Oregon Pacific had not yet reached Yaquina. Finally, in March of 1885, Oregon Pacific trains crossed the Coast Range from Corvallis to Yaquina Bay.

After 1885, the Corvallis to Yaquina route assumed a place in the transportation market of western Oregon. The Oregon Pacific offered three steps in the system. First, a fleet of three steamboats ran on alternate days between Portland and Corvallis. These vessels were the *William M. Hoag*, the *N.S. Bently*, and the *Three Sisters.* The river boats' job was to bring passengers and freight from the Valley towns to Corvallis. From that point, goods and passengers traveled by rail over the coast mountains to Yaquina

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and Letters from the High Cascades of Oregon 1880-1907, (Roseburg: Umpqua National Forest, 1986) p. 1-17.

Bay. Here they embarked on one of the Oregon Pacific steamships for the trip to San Francisco. As the Oregon Pacific advertisements pointed out, this route was the shortest to San Francisco, cutting 235 miles and 20 hours off the conventional route through Astoria. The weak link in the chain was, however, the access to Yaquina Bay. The port was marginal for large vessels, and two of the Oregon Pacific ships were wrecked entering Yaquina Bay during winter storms in 1887 and 1888. When the Oregon and California/Southern Pacific link to California was completed in 1887, the attraction of shipping from Yaquina Bay diminished.

There were, of course, other sources of traffic for the Corvallis to Yaquina rail link. Mail contracts added revenue and apparently some direct subsidy from the government. As historian Lloyd Palmer points out, holiday and excursion passenger traffic to the coast was another reliable source of revenue for the new railroad.[9] The tourist traffic was enhanced by local regulations that forbade the sale of alcohol in many of the Willamette Valley communities, while Newport was a "wide open" deep water port. Other writers, including Mills and French, comment the bibulous nature of Oregon Pacific passengers.

As the railroad built east to Albany and eventually up the North Santiam Valley as far as Idanha, additional opportunities for passenger and freight service became available. The Oregon Pacific also served as a feeder line to its old rival, the Southern Pacific. As Randall Mills remarks, "the Oregon Pacific was a good idea" that had a viable if limited place in the western Oregon transportation network.[10] If Col. Hogg had not pursued his dream to build east across the mountains, the railroad would have stabilized and found its market niche in log and lumber traffic. Under the management of Hogg's successors, A.B. Hammond after 1895 and the Southern Pacific after 1907, the Oregon Pacific route from Idanha to Yaquina Bay was a respectable branch line railroad.

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[9]Lloyd Palmer, *Steam Towards the Sunset: The Railroads of Lincoln County*, (Newport, OR: Lincoln County Historical Society, 1982) p. 12.

[10]Mills, p. 70.

Chronology of the Construction Period

Table 1
CHRONOLOGY OF OREGON PACIFIC CONSTRUCTION 1886-1890

1886		
1886	Feb. 5	OP elects corporate officers *Railroad Gazette*
1886	Aug. 4	G.W. Hunt completing OP between Corvallis and Albany *Oregonian*
1886	Sept. 4	Bridge across the Willamette nearly complete, Hogg takes investors to pass. *Oregonian*
1886	Sept. 19	John L. Blair and Percy Pyne, dir. of the Chicago and North Western on site *Oregonian*
1886	Nov. 12	End work for the winter on the Mountain Division *Railroad Gazette*
1886	Dec. 31	Grade from Albany to the Santiam R. *Railroad Gazette*
1887		
1887	Jan. 28	OP opens bridge across the Willamette *Railroad Gazette*
1887	Feb. 25	OP complete to Albany 200 men in "rock-working" party on the summit making a big cut. *Railroad Gazette*
1887	June 17	OP sells 6% bonds *Railroad Gazette*
1887	July 29	Nelson Bennett has contract to build east from Albany. 75 Chinese on crew *Lebanon Express; Railroad Gazette*
1877	August 5	Track laying between Albany and Santiam *Railroad Gazette*
1887	Aug. 19	Men and teams passing through Lebanon to work on OP with Giant Powder *Lebanon Express*
1887	Sept. 29	Tracks to the Santiam R. 9 miles east of Albany *Railroad Gazette*
1887	Oct. 14	L.G. Cannon appointed Asst. Manager *Railroad Gazette*
1887	Oct. 21	Tracks to the O&C 12 miles east of Albany; 3000 men on the job *Railroad Gazette*

1887 Continued

1887	Oct. 26	1200 men at work with Hunt and Bennett *Oregonian*
1887	Dec. 9	Open winter allows late work *Railroad Gazette*
1887	Dec. 23	Hunt and Bennett end contracts for non-payment *Railroad Gazette*
1887	Dec. 28	Hunt and Bennett end contracts for non-payment *Lebanon Express*

1888

1888	Jan. 6	Bennett sues OP for $550,000 *Railroad Gazette*
1888	Jan. 20	Bennett sues OP for $551,815 *Lebanon Express*
1888	Feb. 10	Contractors working 49 miles "above" Ontario *Railroad Gazette*
1888	March 2	G.W. Hunt sues OP for $160,000 *Oregon Statesman*
1888	March 9	Contract of Aug. 8, 1887 abandoned by Hunt on Dec. 12, 1887 *Oregon Statesman*
1888	April 24	Hunt removing equipment and teams *Oregon Statesman*
1888	May 1	Surveys continue "east of Albany" *Oregon Statesman*
1888	July 13	Charles Hunt remained through the winter of 1887-8 at the Hunt camp as caretaker *Oregon Statesman*
1888	Aug. 10	Brink and West take over Bennett and Hunt contracts *Lebanon Express*
1888	Aug. 10	Work to begin again on line east of Albany; Relocation of grade avoids tunnel *Railroad Gazette*
1888	Sept. 14	Work continues; 500 men on the job; 56 lb. English rail
1888	Oct. 22	OP suit against Hunt to trial *Albany Daily Democrat*
1888	Nov. 2	Track to Mehama *Railroad Gazette*
1888	Dec. 7	Hunt settles suit for $65,073; track to Mill City *Railroad Gazette*
1888	Dec. 21	Trains to Mill City *Railroad Gazette*
1888	Dec. 27	Meyer and Co. laborers in Corvallis demand money *Albany Daily Democrat*

1889

1889	Jan. 1	Bennet's contract completed, "trains running on it" *Oregonian*
1889	Jan. 9	Work stops for winter. Tracks 60 miles east of Albany. 130 Chinese not paid by Myers *Oregon Statesman*
1889	Jan. 25	100 Italian laborers not paid by Searle and Deane; riot in Albany *Oregon Statesman*
1889	Jan. 25	Work suspended, workers laid off *Railroad Gazette*
1889	Feb. 1	Marion Co. Sheriff levies property of Searle and Deane for Fletcher, Meyer & Co. and Giant Powder Co. *Oregon Statesman*
1889	March 1	Wabash and Pacific RR engineering party reported on Hogg Pass *Oregon Statesman*
1889	March 15	OP right of way claim uncertain *Oregon Statesman*
1889	March 22	OP right of way claim now more certain, Eccsleson reports UP engineers in central Oregon *Oregon Statesman*
1889	April 5	Corp. officers re-elected in annual meeting *Railroad Gazette*
1889	July 12	Contract to Antonelli and Doe of SF; 4 miles of grade at summit *Railroad Gazette*
1889	August 2	Sheriff's sale of Searle and Deane personal property nets $1300 *Oregon Statesman*
1889	Oct. 11	Working to complete line *Railroad Gazette*
1889	Oct. 18	Contract to Orman and Cook of Pueblo, Colo. *Railroad Gazette*
1889	Oct. 25	Eight miles graded on summit; track 5 miles east of Gatesville (44 miles east of Albany) *Railroad Gazette*
1889	Nov. 8	OP has 1000 men at work, six contractors, tons of rail coming in from SF *Oregon Statesman*
1889	Nov. 15	Track to Breitenbush, bridge over Breitenbush R. under construction *Oregon Statesman*
1889	Nov. 29	Men leaving construction camps because of poor living conditions *Oregon Statesman*
1889	Dec. 27	Track 60 miles east of Albany, 15 more miles to complete grade to summit *Railroad Gazette*

1890

1890	Jan. 1	Track crossed Breitenbush R. In Dec., 1889; *Oregonian*
1890	May 9	OP to restore Minto Trail where they have used its right-of-way *Oregon Statesman*

1890 Continued

1890	May 16	OP sale rumors *Oregon Statesman*
1890	Oct. 3	OP defaults on interest payments on its first mortgage bonds *Railroad Gazette*
1890	Oct. 31	OP placed in receivership on petition of Farmers' Loan and Trust, NY City; Hogg appointed Receiver *Railroad Gazette*

Construction over the Cascades 1886-1890

The portion of the Oregon Pacific that was to cross the Cascades was designated (at least in some references) as the "Central Oregon Division" to distinguish it from the "Coast Division," the "Valley Division," and the "Eastern Division." After beginning service from Corvallis to Yaquina in the spring of 1885, Hogg and his associates threw themselves and their resources into the formidable task of building east across the mountains. In February of 1886, the Oregon Pacific Board of Directors confirmed their confidence in Col. Hogg and his strategy by re-electing him President of the firm.[11] During the summer of 1886, the Oregon Pacific pushed east from Corvallis to Albany. This portion of the route required a major bridge across the Willamette River. Farther east, another bridge would be needed to cross the Santiam River before the railroad could be completed across the Willamette Valley.

At this point, Hogg's major task was arranging financing and working with potential investors. In the summer of 1886, he persuaded John L. Blair and Percy Pyne, directors of the Chicago and North Western Railway to inspect the Oregon Pacific and review its prospects. Wallis Nash, Vice President of the Oregon Pacific, describes the trip "to and over the Pass":

> Up and up we went, even up Seven Mile Hill. Not until late in the day we emerged from the shade of the great firs into the shady little valley where we

[11]See chronology table for references.

> found the shallow Fish Lake and the inn....We pursued our journey on the eastern side over the lava beds where only the special ferns grew in the crevices: then back by Big Lake northward to the Haystack Pass [now Hogg Pass]...We traveled quickly back to Corvallis. The following day our visitors left for the East. That was the high water mark of the fortunes of the Oregon Pacific.[12]

Blaire and Pyne were impressed by what they saw, and Nash's comment makes clear the extent to which the Oregon Pacific relied on Blaire and Pyne and other eastern investors. The railroad was financed by three sources: a sale of common stock, several issues of bonds, and short-term loans from individual investors and banks.[13] The sale of stock grossed only $10,000, and commissions reduced the net cash that the stock brought in. The sale of bonds grossed $7.3 million, again less commissions. Short term loans from individuals and institutions produced an additional $7.8 million of capital. Other sources, including a US mail service subsidy added $623,803 to the capitalization. Blair and Pyne invested in the new railroad by buying bonds and by making personal loans. They presumably had confidence in Hogg and the management team, but as bondholders they would have first claim against the property should the railroad fail. This eventuality suited their purpose as well as the railroad's success, since they hoped to connect their own transcontinental line, the Chicago and North Western, to the Oregon Pacific for a West Coast terminus. If Hogg succeeded, they would try to buy the Oregon Pacific; but if he failed, they could simply foreclose.

As early as June of 1886, then, we find Blaire and Pyne buying bonds and making loans to the fledgling railroad. The Receiver's records show that $6,235,953 of the loans' principle was repaid, and that $430,546 was paid in interest on the loans during the construction period, 1886-1890. In effect, then, funds were available during the construction period, but Hogg would have been obliged to continually find more money to pay notes coming due and to cover debt service on the bonds, as well as pay

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[12]Wallis Nash, *A Lawyer's Life on Two Continents* (Gorham Press: Boston, 1919) p.179-181.

[13]See E.C.M. Rand, "Report, Oregon Pacific R.R. and Willamette Valley and Coast R.R." and "Report on Transactions of Management, Oregon Pacific Railroad."

the costs of construction.

By the end of 1886, the grading crews had completed the route east to the Santiam River. In January of 1887, the bridge across the Willamette was complete. Then, at the end of February of 1887, Col. Eccleson sent contractors to began construction at the top of the pass, working westward back toward the Willamette Valley. G.W. Hunt was the contractor on this portion of the system, reportedly employing 200 men in a "rock working" party. Hunt employed Chinese laborers in some camps, but there is no clear documentation of the ethnic composition in the 1887 crew at the pass. The camp associated with construction at the top of the pass is located in the SW 1/4 of section 30, T. 13s, R. 8e. The camp is near a route between the pass and the Santiam Wagon Road. Features and artifacts on the surface indicate that the camp was re-used in more recent times, and part of the forest road to the camp was originally built as railroad grade.

Eccleson's decision to begin construction at both ends of the railroad simultaneously seems strange now, for the ordinary practice was to build a railroad in a continuous fashion from the beginning or proximal end out to the far or distal end. With this method, the completed railroad could be used to bring men, equipment, and construction supplies to the end of the system where work was going on. Eccleson's decision to begin at the pass and work west meant that all supplies and equipment had to be hauled by team up the Santiam Wagon Road through Lebannon to reach the construction site. This was expensive and inconvenient, yet he began during the winter of 1887 when weather conditions and snow on the ground would have hampered operations even further. The most likely motivation for this decision was his and Hogg's anxiety to secure a claim to the pass. With work completed at that point, the General Land Office was certain to honor their claim to the pass, which Hogg referred to as their "franchise" on many occasions.

The construction technology employed on the Oregon Pacific also affected decisions about the sequence of building. The Oregon Pacific was built by explosives, by equipment operated by teams of horses and mules, and by hand. Teams with carts could move loads of earth and rock from the cuts, where it was excavated, to the fills, where it was deposited. The earth and stone were loosened from the cuts by blasting powder, but the labor of loading the carts was accomplished by hand. Since the

builders did not use rail-mounted equipment, work could begin at any point of the system, whether rail access was available or not. A few years later, at the turn of the century, Hunt, Nelson, and the other contractors would have used steam powered earth moving equipment mounted on rails. Rail-mounted steam shovels manufactured by Bucyrus-Erie and the side-dumping rail cars manufactured by Lidgerwood revolutionized earth moving for railroad construction, dam building, and other civil engineering projects. These machines were still a few years in the future, however, so the builders of the Oregon Pacific had to rely on explosives and muscle power. The evidence of strap-iron covered wooden rails and track hardware on some sites indicates that tram carts on rails were used for earth moving when the conditions were right.

As the spring and summer of 1887 wore on, the railroad progressed across the Willamette Valley. In August, Nelson Bennett's crews were laying track between Albany and the Santiam River, and by October, the track reached a crossing point with the Oregon and California Railroad, some 12 miles east of Albany. The *Railroad Gazette* reported that 3000 men were employed on the project at this time. The fall of 1887 was mild, and the work continued as late as December, when Hunt and Bennett stopped work and sued the railroad for non-payment of their invoices. The suits filed by both contractors went to court the following year, and were settled by the end of 1888. The finances of the Oregon Pacific were complex, but Hogg had sold bonds at 6% as recently as February of 1887, so it seems likely that some money would have been available. At any rate, work ended in December of 1887.

The winter and spring of 1888 passed with little activity on the project except for some construction on the Eastern division of the system in the Malheur Canyon. This grading occurred in February of 1888, and was presumably another attempt to secure rights to a crucial portion of the route.

In August of 1888, new contractors--Brink and West--took over the contracts abandoned by Hunt and Bennett. Work resumed on the 10th of August and apparently progressed quite rapidly on the lower valley of the North Santiam. The railroad followed the south bank of the river at this point, crossing the river by another bridge at Mill City. By November tracks were extended as far as Mehama, and at the end of 1888, Oregon Pacific trains were serving Mill City.

In December of 1888 and January of 1889, the Oregon Pacific sub-contractors experienced difficulties with their crews. On December 27, 1888, "several hundred" workers employed by J.G. Meyer and Company demonstrated in Corvallis, creating "a worse spell than smallpox" for the town.[14] The Oregon Pacific office and the Job and Hamilton Bank were reportedly guarded during the fracas. Two weeks later, the Corvallis "city authorities" sent 130 of Meyers' Chinese laborers to San Francisco.[15] Then, at the end of January, 200 Italian workers employed by Searle and Deane gathered outside the First National Bank in Albany and "worked themselves into quite a frenzy by loud and threatening talk."[16] When Searle appeared outside the bank, the workers threatened to "burn the railroad bridges, stop all trains, and take their money by force." They then overpowered Searle, drew their knives, and threatened to kill him "then and there." The Mayor and a group of citizens restored order, and a local realtor cashed the workers' checks for $.90 on the dollar, thus ending what must have been an exciting day in Albany. Finally, on January 25, all Oregon Pacific construction was halted for the winter.

The events of the winter of 1888/1889 suggest that the Oregon Pacific was having some difficulty meeting its contractors' invoices, but the situation is difficult to interpret. Major contractors like Hunt and Bennett were involved in railroad projects throughout the west. They were presumably well capitalized and no doubt accustomed to dealing with slow payments. When they decided to drop their contracts, they had obviously lost confidence in the Oregon Pacific. We could expect the contractors who followed Hunt and Bennett to be smaller firms, without the financial resources to absorb interruptions in their cash flow. On the other hand, they were also perhaps less responsible than Hunt and Bennett. For example, the principals of one sub-contracting firm, Smith and Allen, responded to financial problems by fleeing the country, "one to California; and the other one north," leaving debts of $4000 owed to their workers.[17] Even if the Oregon Pacific had paid the contractors, as they claimed, the contractor

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[14] *Albany Daily Democrat*, Dec. 27, 1899.

[15] *Oregon Statesman*, Jan. 5, 1889.

[16] *Oregon Statesman*, Jan. 25, 1889.

[17] *Albany Daily Democrat*, Dec. 27, 1888.

could not always be relied upon to pay their workers.

By the summer of 1889, the contract situation was sorted out with a sheriff's levy and sale of Searle and Deane's personal property to satisfy judgements from Fletcher, Meyer and Company and the Giant Powder Company. The Oregon Pacific contracted with Antonelli and Doe of San Francisco and Ordman and Cook of Pueblo, Colorado, to complete the grade to the pass. Antonelli and Doe went to work on the summit, where they resumed construction on the four miles of grade completed by Hunt's crews in 1887. By October 25, they had completed an additional four miles of grading west of the summit. On the other end of the line, the tracks reached a point five miles east of Gatesville in October. In December, the bridge over the Breitenbush River was opened to traffic. During the fall of 1889, 1000 men were reportedly working on the railroad under the charge of six contractors. By the end of November, men were reported to be leaving the camps because of the poor conditions. By the end of December, tracks reached Idanha, 60 miles east of Albany and a short 15 miles from the summit. This was to be the end of the track.

In the spring of 1890, the Oregon Pacific was back in the news because of rumors of financial problems and an impending sale. The summer's press carried no construction news. Then, in October, the railroad defaulted on interest payments to its bondholders, rendering itself bankrupt. The Farmers' Loan and Trust Company of New York City forced the Oregon Pacific into receivership on October 31, 1890.

Aftermath, 1890-1895

Judge M.L. Pipes, who granted the petition of receivership for the Farmers' Loan and Trust Co., also appointed Col. Hogg as the receiver. In this capacity, Col. Hogg's duty was to operate the railroad to preserve the assets of the bondholders. Construction east of Idanha was not continued.[18]

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[18]Hadley says that "construction stopped in the fall of 1889." E . W. Hadley, *The Oregon Pacific Railroad: Its Inception, Present Condition, and Needs.* (Chicago: Rand, McNally, and Co.,1893), p. 8. See also Leslie M. Scott, "The Yaquina Railroad" *OHQ* Vol. 16, Fall 1915, 228-245 and Lloyd Palmer, *Steam Towards the Sunset*, (Newport, OR; Lincoln Co. Historical Society, 1982) 10ff, for an account of the receivership period.

In the ensuing year, the railroad continued to haul passengers and freight from Albany and Corvallis to the coast. The company's river boats plied the Willamette, and its steamships made scheduled runs between Yaquina and San Francisco. None of these activities was profitable, however, and the debts kept piling up. There was also considerable criticism of Col. Hogg's management during this period. He apparently lived in New York City and did not attend too carefully to the railroad's needs. Maintenance on the track and equipment was deferred, employees were not paid, and service declined. There was also some vituperative press about the role of the Farmers' Loan and Trust, the trustee for the first mortgage bond issue. The prospectus issued by the company announced that the first mortgage bonds would be issued at the rate of $25,000/railroad mile. Since the total mileage projected from Yaquina to Boise was 600, the trustee issued and sold $15,000,000 of first mortgage bonds. With the clarity of hindsight, the *New York Post* argued that the trustee should have issued bonds only on the miles of railroad completed, rather than projected. The language of the prospectus could have been interpreted either way, but the Oregon Pacific (or any other railroad) could not have been built without mortgage funds.[19] The Northern Pacific, by comparison, issued $50,000 of bonds for each mile.

Most of the criticism of Hogg's management dates from his 26-month tenure as court appointed receiver. At the time, many investors in Oregon and elsewhere were feeling the effects of the Oregon Pacific's bankruptcy. *Oregonian* reporters criticized Hogg's management on several occasions with references to "fraud" and "misappropriation of funds," and a "moral if not legal obligation" to bondholders.[20] Journalists' insinuations aside, there was some substance to the complaints. First of all, the Oregon Pacific was bankrupt, and bankrupt railroads were not easily revived. So the ordinary investors had most probably lost their money. Worse, the bankruptcy auction would almost certainly allow the large bondholders--like Blain and Pyne--to buy the railroad for pennies on the dollar. Second, the worldwide recession of the 1890s was beginning to have an effect on all business activities and most investors would be feeling the pinch. Finally, Hogg himself was not behaving very well. He

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[19]*Oregonian* Oct. 27, 1891, p.10..

[20]*Oregonian*, Oct. 27, 1891, p. 10.

spent little time in Oregon and let the railroad decline. During his receivership, he issued $800,000 in notes which he sold at discounts as high as 60% of their face value.[21] Despite the cash raised in this desperate fashion, he still owed $127,000 to employees for back pay, and over $25,000 to suppliers, contractors, and local tax collectors.

Hogg's reputation was further besmirched by another investigation into his business practices. In 1894, the owners of the 800,000 acre Willamette Valley and Cascade Mountain Wagon Road Company brough suit against the Oregon Pacific for illegal appropraition of title to their grant lands. In the course of this action, the Court determined that Col. Hogg had illegally deeded the WVCMWR grant lands over to the Oregon Pacific while he was serving as agent for the owners in 1880.[22] This was a serious charge. If it was true, it raises questions about Hogg's motives for this bizzare action, and what effect it had on the fortunes of the Oregon Pacific.

On January 22, the sheriff held the first of a series of bankruptcy sales. The bondholders, bidding through board member Zephim Job, offered $1,000,000 for the company. This group included the original investors--especially Blair and Pyne and the Chicago and North Western group. The bondholders quarreled, however, and did not complete the purchase. Hogg was removed as receiver in 1893, and E.H. Hadley, who had been superintendent of the railroad was installed. Hadley was zealous about paying bills and performing maintenance, but these efforts did not increase revenues and the company went deeper into debt. In January of 1894, the court removed Hadley and installed Charles Clark as receiver. Clark was an attorney from New York who had the confidence of the bondholders. Through his efforts, the company finished one quarter in the black.

As the financial maneuvering continued, the Marion County Sheriff continued to schedule auctions. In all, eight attempts to sell the railroad resulted in three sales. The first, to Job and the bondholders for $1,000,000, failed when they did not meet the

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[21]Scott, p. 241;

[22]Cleon L. Clark, *History of the Willamette Valley and Cascade Mountian Wagon Road*, (Bend, OR: Deschutes County Historical Society, 1987) p.90 ff..

payment. The second sale, made on December 15, 1893, resulted in a bid for $200,000, again from a group of bondholders. The court later reconsidered this bid and rejected it as too low. Finally, at a sheriff's auction held December 22, 1894, Montana lumberman A.B. Hammond bought the Oregon Pacific for $100,000. Bondholders protested, but the State Supreme Court upheld the sale on July 22, 1895.

Hammond was supremely well-positioned to operate the Oregon Pacific in a profitable fashion. As a lumberman, Hammond saw the system as a logging and lumber railroad. He was interested in timber lands and a mill in Mill City, which would require rail service and would generate sufficient traffic to sustain the railroad. The plans to serve eastern Oregon or to connect with transcontinental service apparently never interested Hammond. He also had little interest in shipping, or in developing Yaquina Bay as a port. Accordingly, Hammond incorporated the Oregon Pacific as the Corvallis and Eastern Railway and later re-named it the Oregon Central and Eastern. He sold the steamboats, ships, and the extra rolling stock as business conditions improved during the mid-1890s. These items brought $192,000, or nearly twice what he paid for the company. Finally, in 1907, having built the railroad into a viable business, he sold it to E.H. Harriman for $750,000.[23]

Proposals to Extend the Line

Even after Hammond had shown that the railroad's future lay in the mundane but profitable business of moving logs and lumber, the dream to extend east into central Oregon lived on. During the summer of 1894 reporters in the *Oregonian* pointed out just how close the railroad had come to the summit of the Cascades and just how limitless the opportunities in central Oregon were.[24] By the following summer, the *Oregonian* was reporting that the distance from the end of the line at "Rock Creek" to the pass was "12 miles, and eight miles of the grading has already been done."

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[23]Scott, p. 245.

[24]*Oregonian*, July 21, 1984, 3:7; August 1, 1894, 9:5.

Furthermore, the remaining work was "not necessarily very heavy and could easily be done this fall"[25]

The journalist's speculation ignored some basic realities. Eight miles of grade near the pass may have been built on maps, but not as a continuous grade on the ground. The remaining parts of the pass segment would be very difficult and expensive. The bridges and trestles remaining near the pass would also be very expensive to build, especially the Lost Lake Creek trestle. Finally, and more to the point, building the railroad to the pass would accomplish nothing. Even if the railroad were completed as far as the settlement at Three Sisters, several miles east of the pass, there would be no traffic for the new line. There was a handful of people at Three Sisters and another handful at Farewell Bend in 1895, but not nearly enough to provide adequate traffic for the line. The nearest source of traffic would be Prineville, Crook County seat, which was located some 50 miles east of the pass.

After 1900, however, major railroad builders were again considering ways to build through central Oregon to connect the Northwest with California. From the north, the Columbia Southern Railroad had built a line from Biggs on the Union Pacific 70 miles south across the Columbia Plateau to Shaniko. A parallel line, the Great Southern, was built in 1904 from the Dalles south into Wasco County for 40 miles. Since neither of these two railroads could negotiate the terrain that led to the Deschutes Valley, they remained dead-end routes.

At the southern border of the state, the narrow-gauge Nevada-California-Oregon Railway reached Lakeview in 1912. This provided service to Lake County, but because narrow-gauge equipment was incompatible with broad-gauge equipment, the railroad had little utility in transcontinental commerce. For this reason, plans to extend the NCO to other Central Oregon towns died and this railroad became another dead-end.

From the Union Pacific line in the eastern part of the state, the Sumpter Valley railroad, yet another narrow-gauge line, built west across the mountains to the John Day Valley in 1905. Here again, the impracticality of narrow gauge equipment and the daunting Central Oregon terrain stopped further development.

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[25]*Oregonian*, Aug. 22, 1995, 1:1.

In Klamath County, on Central Oregon's southern border, E.H. Harriman and other Southern Pacific investors built the California and Northwestern in 1909. This line was a branch of Harriman's Southern Pacific extending from Weed, California, to Klamath Falls. Harriman and some associates from San Francisco were heavy investors in Klamath County industry and commerce. Harriman and the Southern Pacific investors wanted to reach into Central Oregon, but they also wanted to control the region by connecting through to their other railroads-- the Southern Pacific line in the Willamette Valley and the Union Pacific in the Columbia Gorge. This triple connection would dominate the Central Oregon market and assure that all cargoes originating in Central Oregon would enter the interstate market on a Harriman railroad. Better than this, it would also prevent Harriman's rival, James J. Hill, from extending his Northern Pacific line south into California through Central Oregon.

While Harriman was the first to reach into Central Oregon, his plans to extend his California and Northwestern Railroad north from Klamath Falls were thwarted by the Interstate Commerce Commission. Invoking the Sherman Anti-trust Act, federal regulators began to scrutinize connections between the Union Pacific and Southern Pacific as early as 1908[26]

With Harriman blocked from the south, it became apparent that the only remaining railroad route to the pine country would be a passage up the Deschutes Canyon from the Columbia River. Since Hill's Spokane, Portland, and Seattle ran through the Columbia Gorge on the Washington side of the river and Harriman's Union Pacific ran on the Oregon side of the river, Hill and Harriman once again found themselves rather evenly matched. In 1911, the two railroad moguls squared off against each other in the "Deschutes Canyon War." Hill eventually prevailed, reaching Bend in 1912.

Oddly enough, both Hill and Harriman overlooked the Oregon Pacific in their race to reach central Oregon. Harriman owned the Oregon Pacific after 1907, as we have seen, yet he did not choose to extend it to connect with the Union Pacific in Boise, which he controlled, or to connect south to the Klamath Basin, where he was preparing to build the California and Northwestern.

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[26]Austin and Dill, p. 21.

Hill could have bought the old Oregon Pacific from Hammond as easily as Harriman did, but again, he showed no real interest in the line. This is especially perplexing when we consider that Hill had recently purchased the Willamette Valley and Cascade Mountain Wagon Road grant lands--over 800,000 acres of fir and pine timber in the Santiam drainage and in central Oregon. In 1891, E. W. Wilkinson, who was Resident Engineer of the Oregon Pacific (in receivership), wrote to E.B. Wakeman in Hill's organization:

> In my humble estimation an eastern line from Portland via [the] Willamette Valley over the Cascades through eastern Oregon and Central Idaho with a branch from almost any point in the Valley to Astoria, Oregon, would be as the saying is a good thing.[27]

This letter was written during Hogg's tenure as Receiver, when the Oregon Pacific was officially for sale, but not attracting much attention from buyers other than the bondholders. Wakeman duly passed the letter on the Hill. Hill noted on the letter that this was the second letter from Wilkinson, but he remarked that he had "no use for either" of the two missives.

Fifteen years later, in 1906, Hill bought from Hammond "all the stock and all the bonds of the Astoria & Columbia River Railroad Company of Oregon" for $4,700,000.[28] He surely must have considered buying Hammond's other Oregon railroad at this time, but no evidence of interest remains. Finally, in 1910, when Hill was about to begin construction on the difficult and expensive Deschutes Canyon route, he apparently asked Ralph Budd, one of his best civil engineers, to evaluate the old Oregon Pacific pass. Budd dispatched an engineer from his staff to Hogg Pass and he reported as follows:

> We virtually followed the survey of the Corvallis and Eastern from the Sisters (they stopped their last survey there) to a little beyond Cape Horn [Hogg Rock] which is some distance west of the summit. I find that they are using

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[27]James J. Hill Papers, Wilkinson to Wakeman, April 14, 1891.

[28]James J. Hill Papers, Hill to Hubbard, December 18, 1906.

> 10 degree curves and 2 per cent grades from about six miles west of the Sisters to the summit. They have a tunnel on the present survey about 3000 feet long. West of the summit for about four miles they have a 1 per cent grade and 10 degree curves, then 2 per cent to the Santiam [North Santiam River]. I don't think the country calls for anything sharper than 6 degree curves. They have very little rock on the work that has been opened up, the material being mostly decomposed lava, which is very much like coarse sand. The grading can't have cost more than $10,000 per mile. They use 12 and 14-foot roadbed. About four miles of grading has been done. At Cape Horn the line runs on a rock slide, a retaining wall has been built and 200 feet of 40 lb. rail laid, and the ties have rotted.[29]

The merits of the Oregon Pacific route apparently had no more appeal to Hill in 1910 than they had in 1891. Hill's builders, led by John F. Stevens and Ralph Budd, completed the railroad up the Deschutes, reaching Bend in the autumn of 1911.

In 1926, the Oregon Trunk was extended south from Bend to join the Southern Pacific in Klamath County. At the same time, the Southern Pacific was extended north and west from Klamath Falls to Eugene. At that time, rail service through central Oregon was complete, and the dream of Thomas Hogg was finally dead.

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[29]Quoted in Walter Grande, *The Northwest's Own Railway, Volume Two, the Subsidiaries,* (Portland: Grande Press, 1996).

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Portland Oregonian
Railroad Gazette

(For specific newspaper entries, see Table 1, p. 17ff)

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Oregon Historical Society, Portland
Deschutes County Historical Society, Bend
Linn County Courthouse, Albany
Marion County Courthouse, Salem
Bureau of Land Management GLO Records, Portland
University of Oregon Special Collections, Eugene

Photographic Archives

Detroit Ranger Station, Detroit
Deschutes County Historical Society, Bend
Linn County Historical Society, Albany
McKenzie Ranger Station, McKenzie Bridge
Mill City Museum
Oregon Historical Society, Portland
Oregon State Library, Sigmund Brothers Collection

Private Photographic Collections

Lloyd Palmer Collection, Waldport
Martin Hansen Collection, Bend
Scott Gavin Collection, Klamath Falls

Oral Informants

Eric Bergland, McKenzie Bridge
Keith Clark, Bend
John Frye, Bend
Cara Kelly, Detroit
Scott Gavin, Klamath Falls
Ken Beech. Mt Angel

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

UTM References: Zone 10

	Northing / Easting
A:	580850 / 4949300
B:	581520 / 4948980
C:	581380 / 4948440
D:	584780 / 4921300
E:	586060 / 4920940
F:	587800 / 4921170
G:	588920 / 4920220
H:	589380 / 4920490
I:	589380 / 4919700
J:	589340 / 4919350
K:	589380 / 4918970
L:	589440 / 4920500
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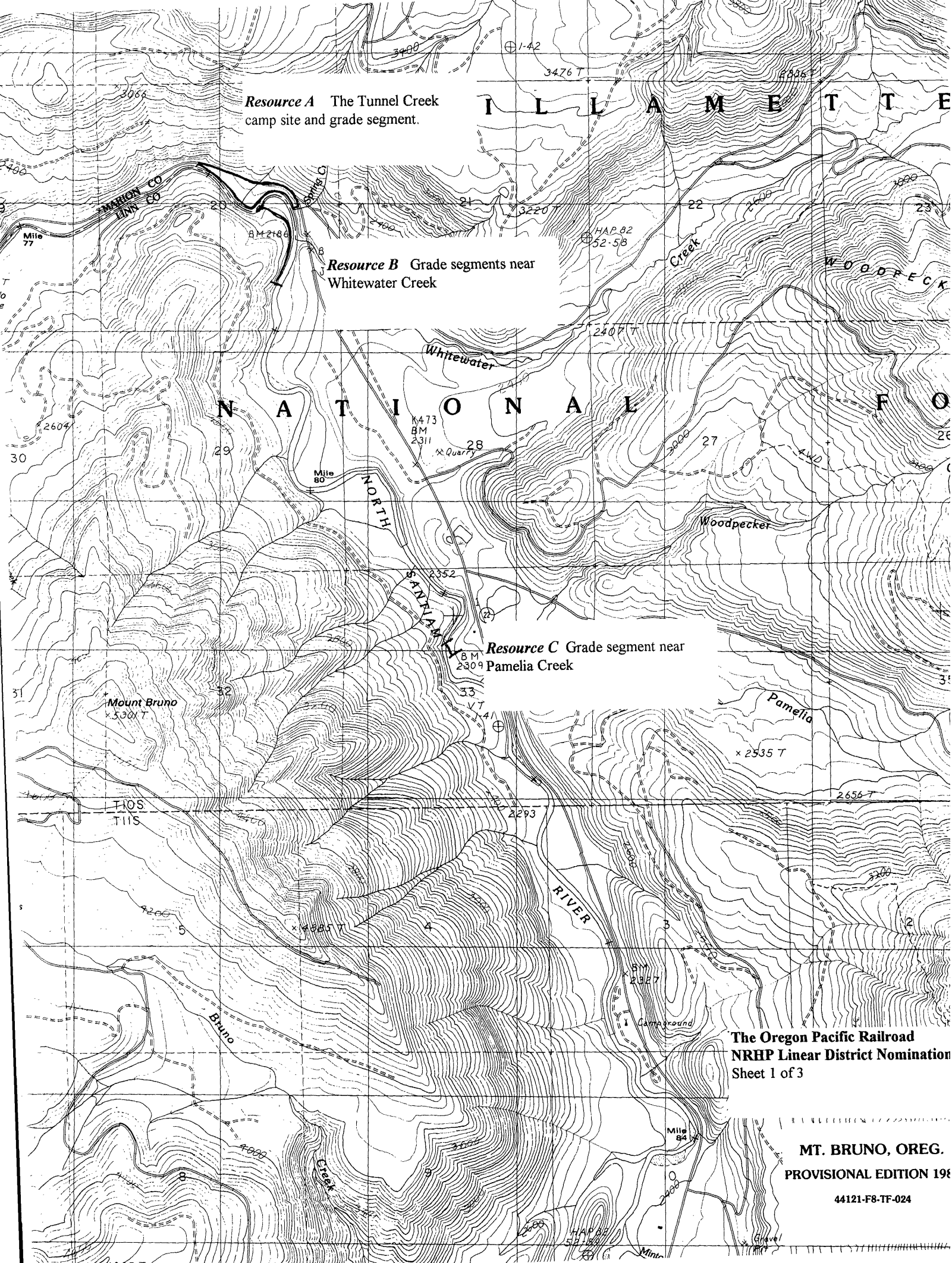
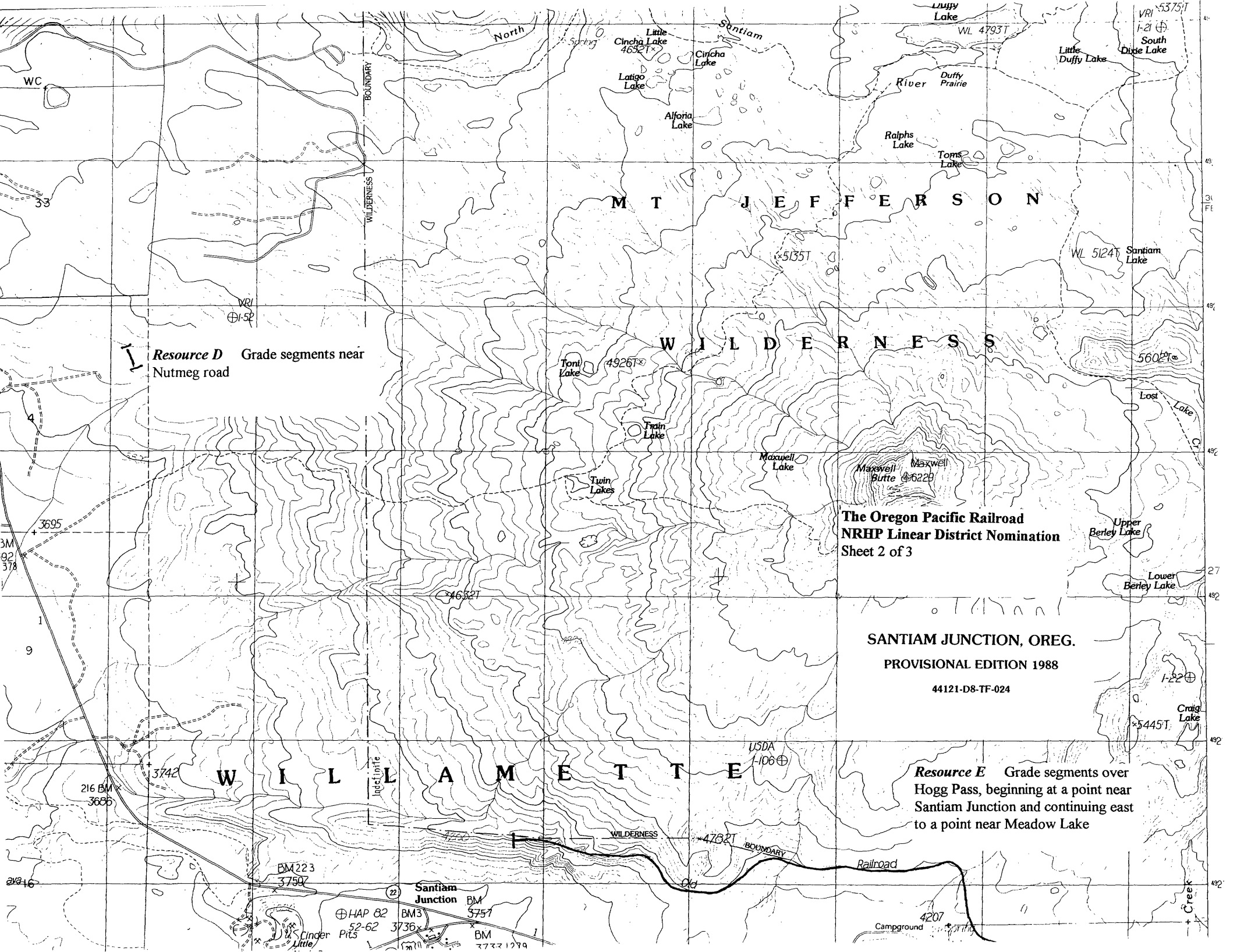
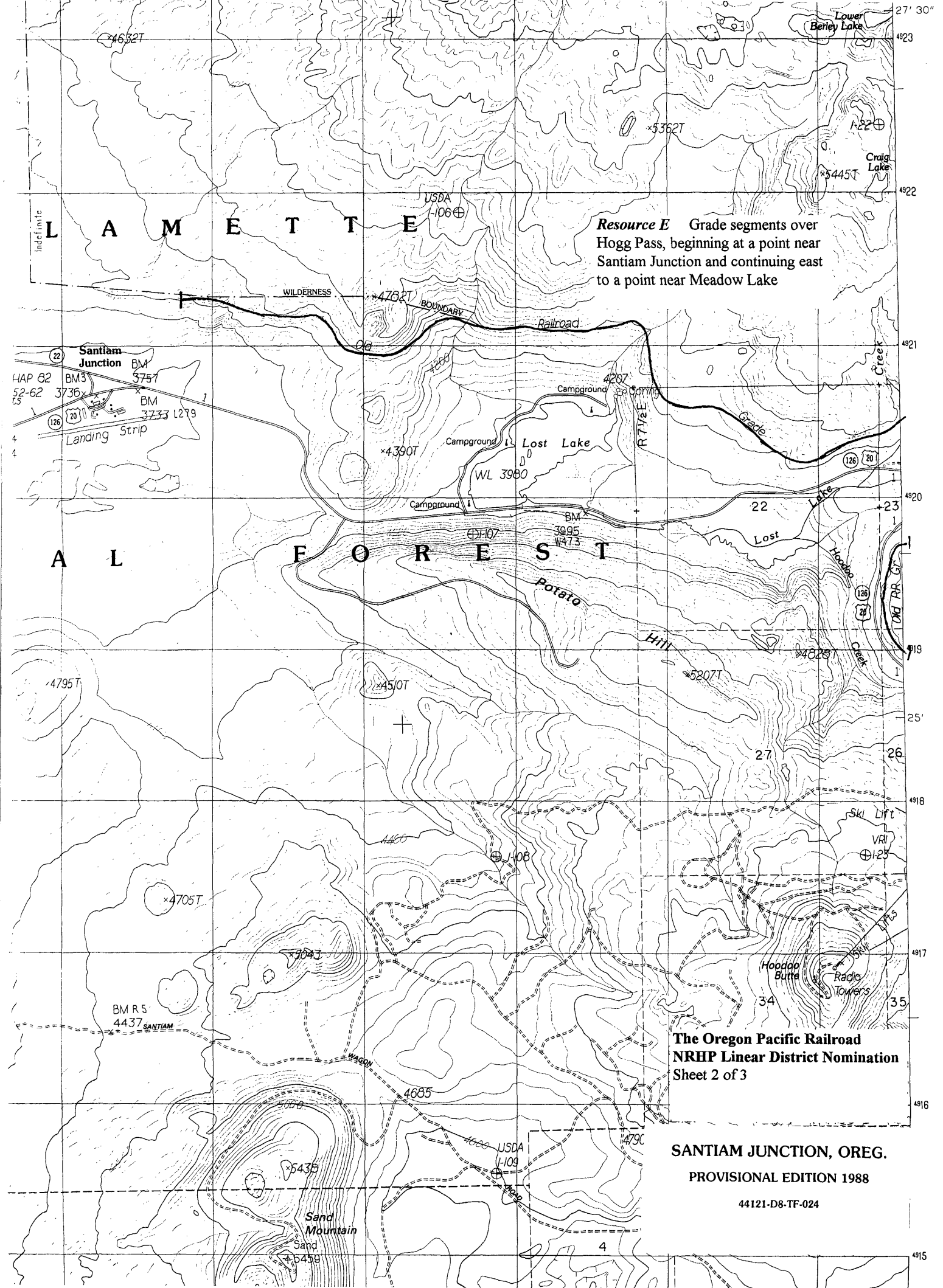


The Oregon Pacific Railroad
NRHP Linear District Nomination
Sheet 1 of 3


Resource D Grade segments near Nutmeg road
Resource E Grade segments over Hogg Pass, beginning at a point near Santiam Junction and continuing east to a point near Meadow Lake
The Oregon Pacific Railroad
NRHP Linear District Nomination
Sheet 2 of 3
SANTIAM JUNCTION, OREG.
PROVISIONAL EDITION 1988
44121-D8-TF-024
M T J E F F E R S O N
W I L D E R N E S S
W I L L A M E T T E
Santiam Junction
Old Railroad Grade
WILDERNESS BOUNDARY
Little Cincha Lake
Cincha Lake
Latigo Lake
Alforia Lake
Ralphs Lake
Toms Lake
Duffy Lake
Little Duffy Lake
South Dixie Lake
Duffy Prairie
Santiam River
Santiam Lake
Toni Lake
Train Lake
Twin Lakes
Maxwell Lake
Maxwell Butte
Lost Lake
Upper Berley Lake
Lower Berley Lake
Craig Lake
Cinder Pits
Campground
Creek



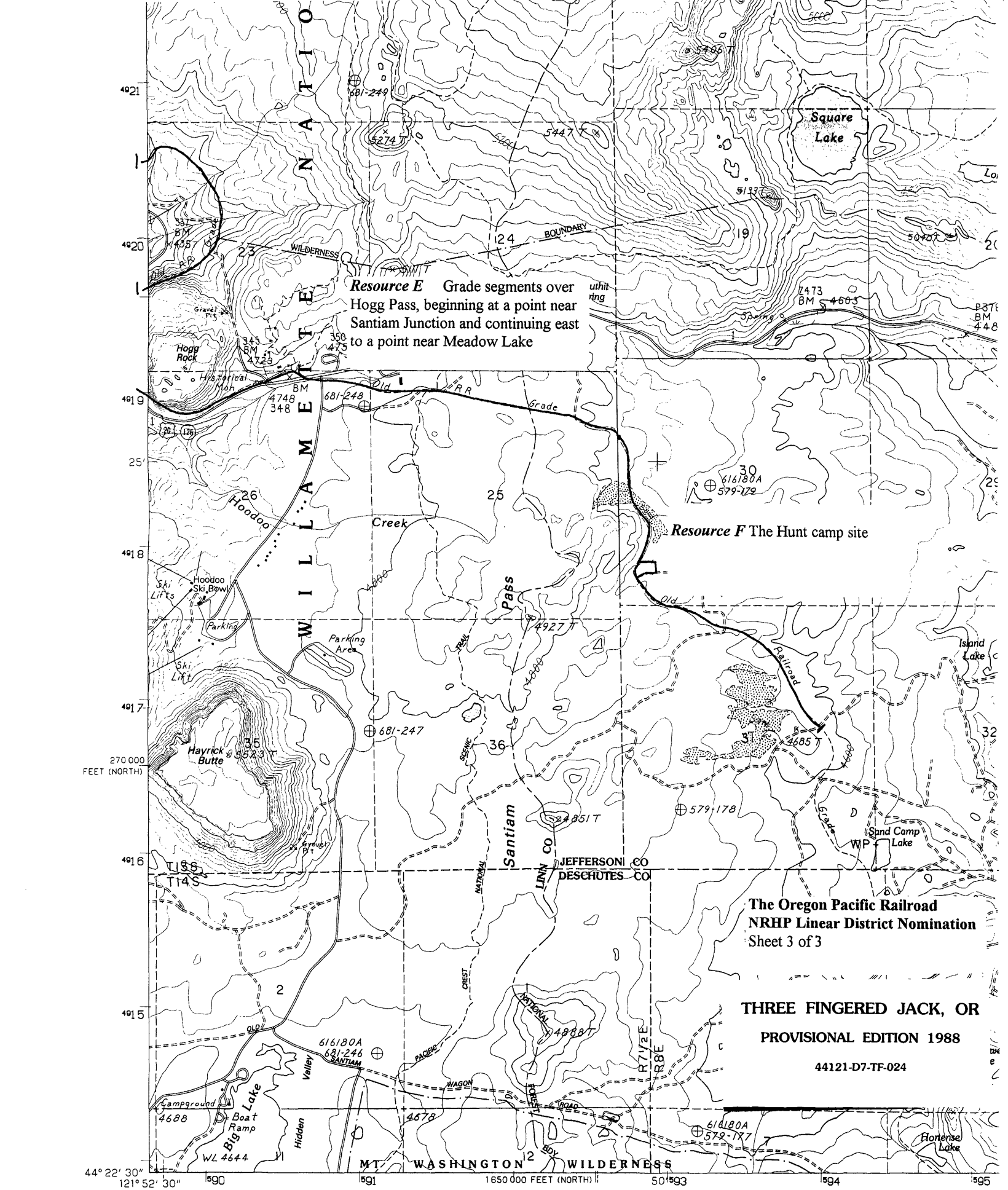
Resource E Grade segments over Hogg Pass, beginning at a point near Santiam Junction and continuing east to a point near Meadow Lake

The Oregon Pacific Railroad
NRHP Linear District Nomination
Sheet 2 of 3

SANTIAM JUNCTION, OREG.

PROVISIONAL EDITION 1988

44121-D8-TF-024



Resource E Grade segments over Hogg Pass, beginning at a point near Santiam Junction and continuing east to a point near Meadow Lake

Resource F The Hunt camp site

The Oregon Pacific Railroad
NRHP Linear District Nomination
Sheet 3 of 3

THREE FINGERED JACK, OR

PROVISIONAL EDITION 1988

44121-D7-TF-024

PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY
CONTROL BY ..... USGS, NOS/NOAA, STATE OF OREGON
COMPILED FROM AERIAL PHOTOGRAPHS TAKEN 1957
FIELD CHECKED 1959
LIMITED REVISION FROM AERIAL PHOTOGRAPHS TAKEN 1979/1982
FIELD CHECKED ..... 1985. MAP EDITED 1988
PROJECTION ..... LAMBERT CONFORMAL CONIC
BLUE 1000-METER UNIVERSAL TRANSVERSE MERCATOR TICKS.. ZONE 10
10 000-FOOT STATE GRID TICKS ...OREGON, NORTH/SOUTH ZONES
UTM GRID DECLINATION ..... 0°50' EAST

NORTH

PROVISIONAL MAP

SCALE 1:24 000

1 .5 0 KILOMETERS 1
1000 0 METERS 1000
1 .5 0 MILES
1000 0 1000 2000 3000 4000 5000 6000 FEET

CONTOUR INTERVAL 40 FEET

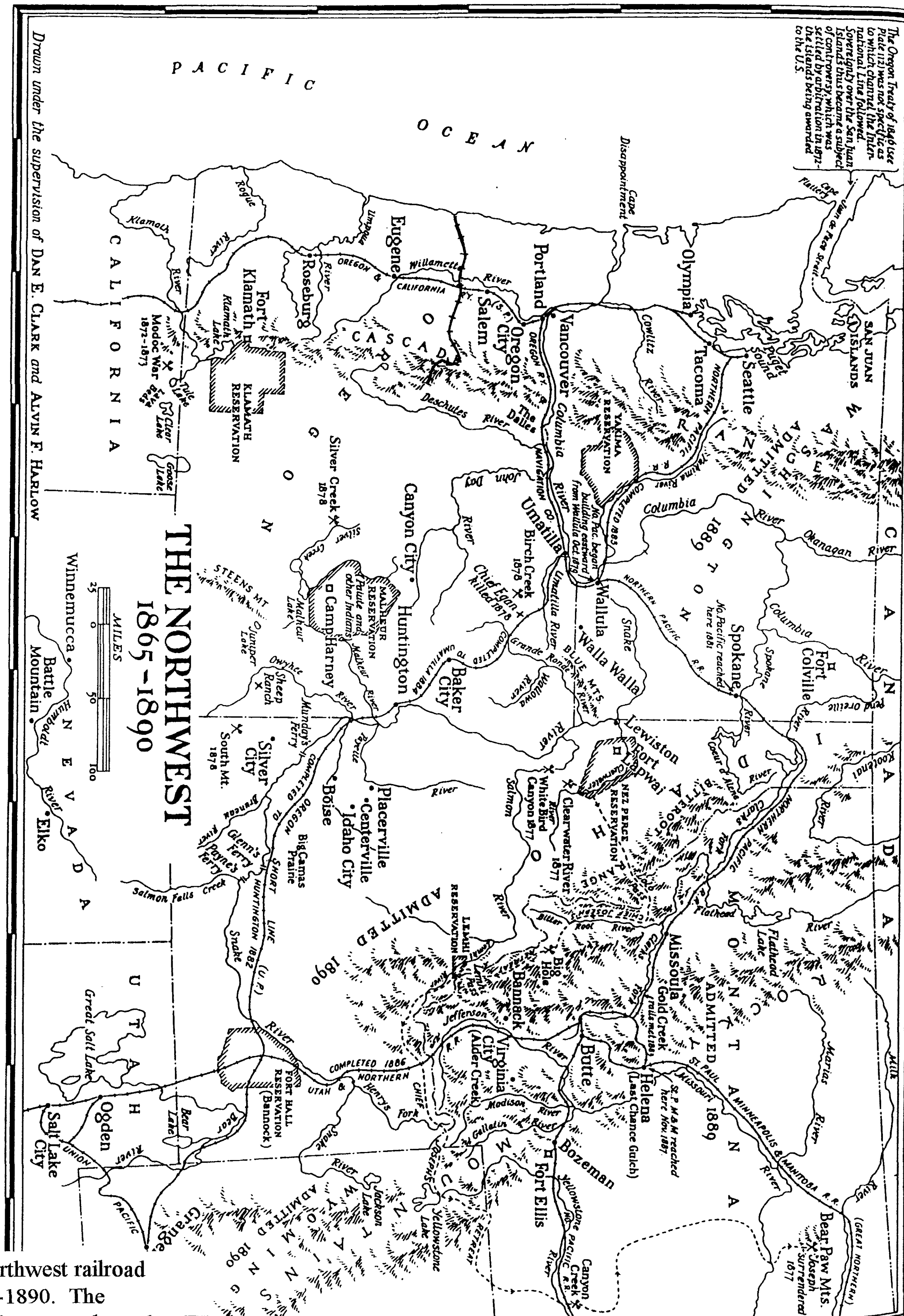


Fig. 1 Map of Northwest railroad development 1865-1890. The Oregon Pacific is shown as planned from Yaquina Bay to Sisters. (Map from Clark and Harlow)

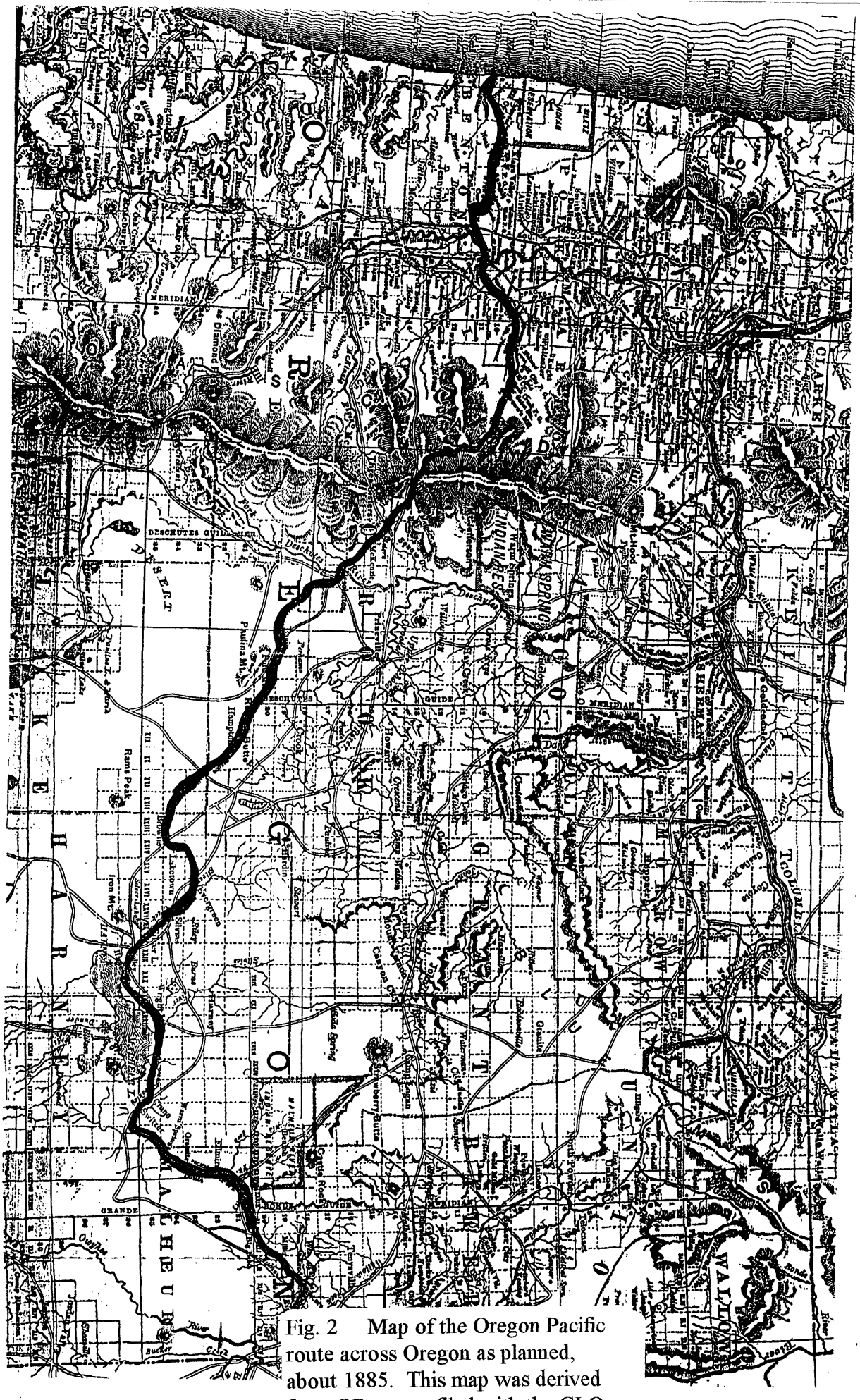


Fig. 2 Map of the Oregon Pacific route across Oregon as planned, about 1885. This map was derived from OP survey filed with the GLO.

Fig. 3 Map of Union Pacific system, c. 1890. Oregon Pacific is shown as complete from Corvallis east to Coe (now Idahna).

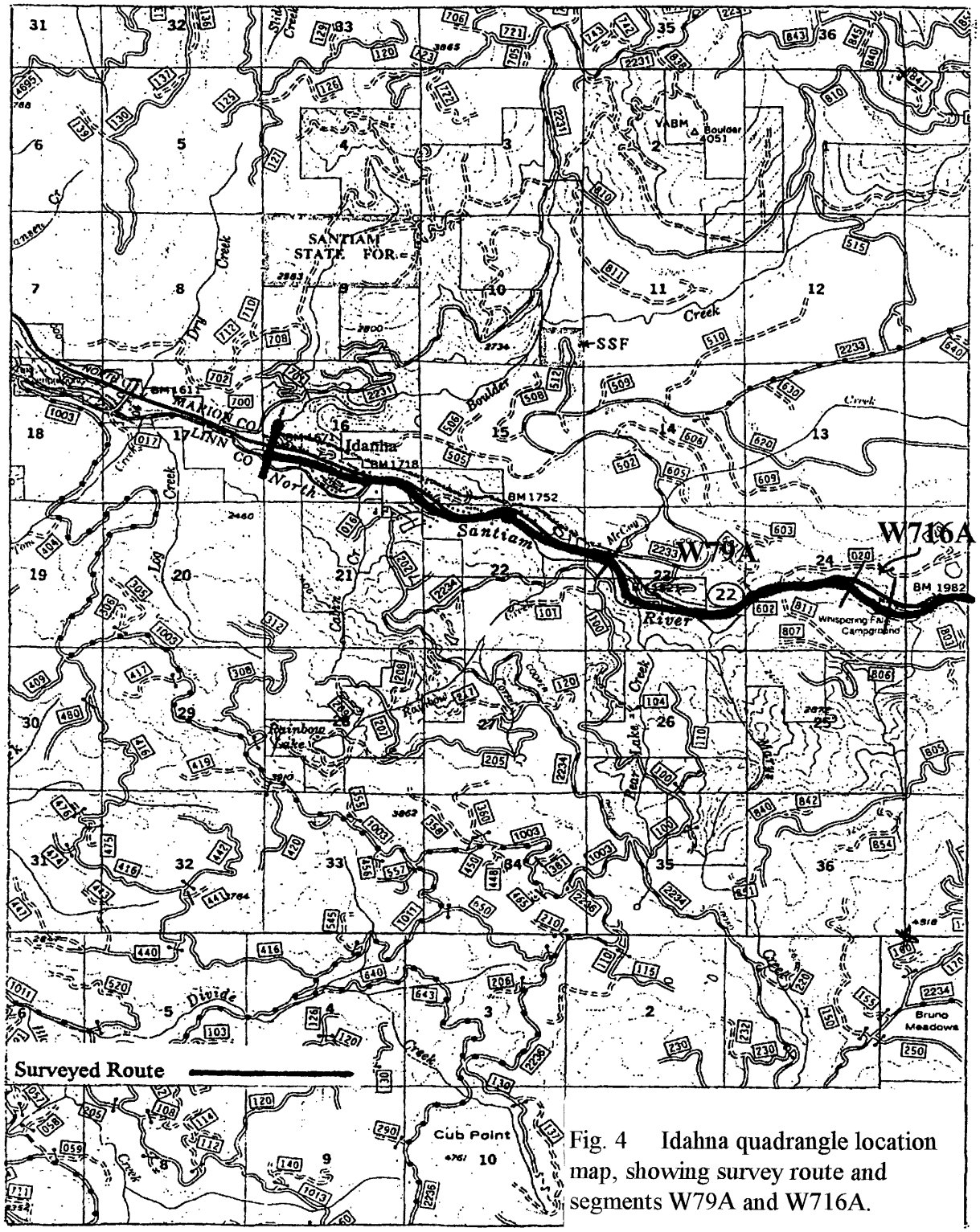


Fig. 4 Idahna quadrangle location map, showing survey route and segments W79A and W716A.

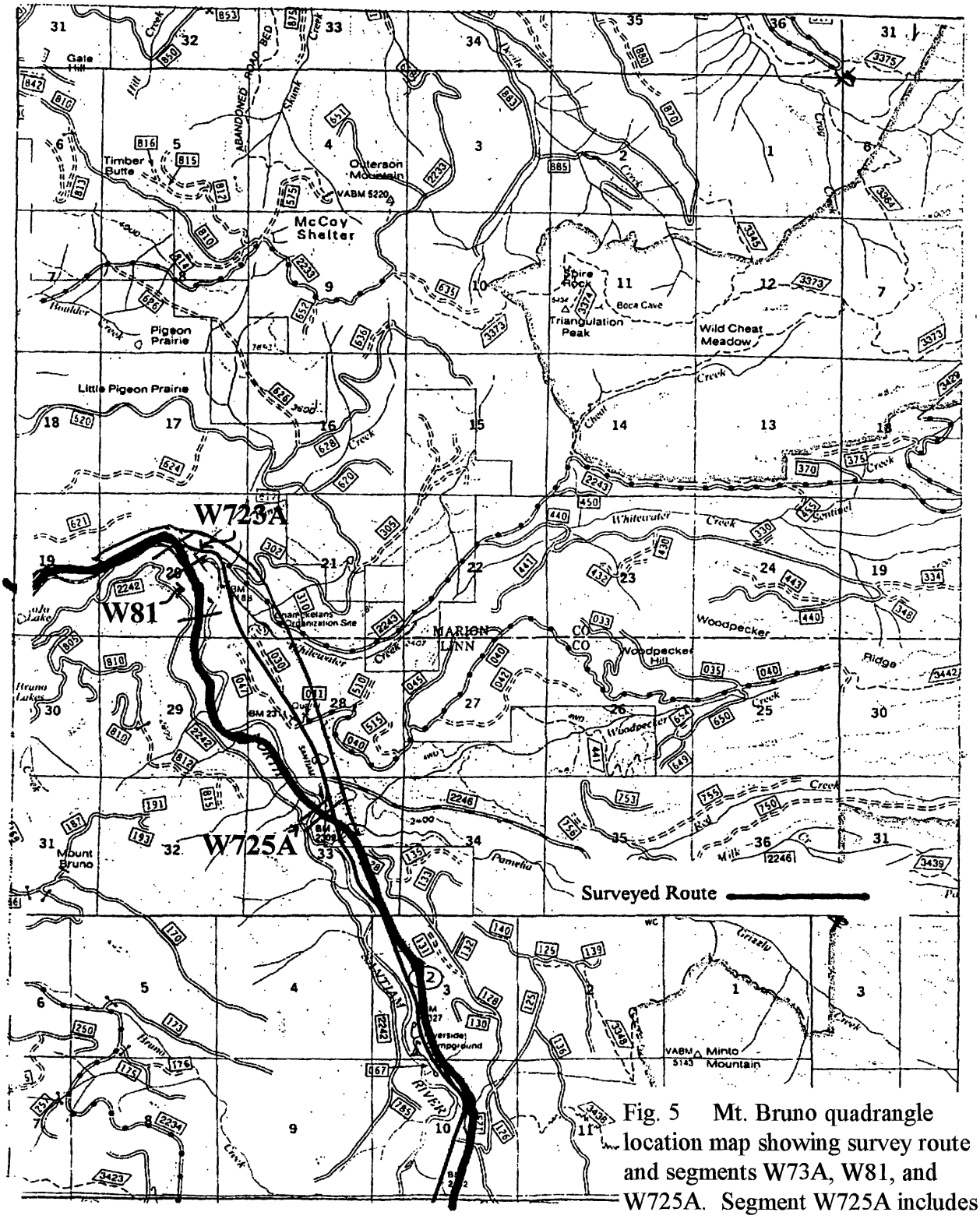


Fig. 5 Mt. Bruno quadrangle location map showing survey route and segments W73A, W81, and W725A. Segment W725A includes the Tunnel Creek camp site.

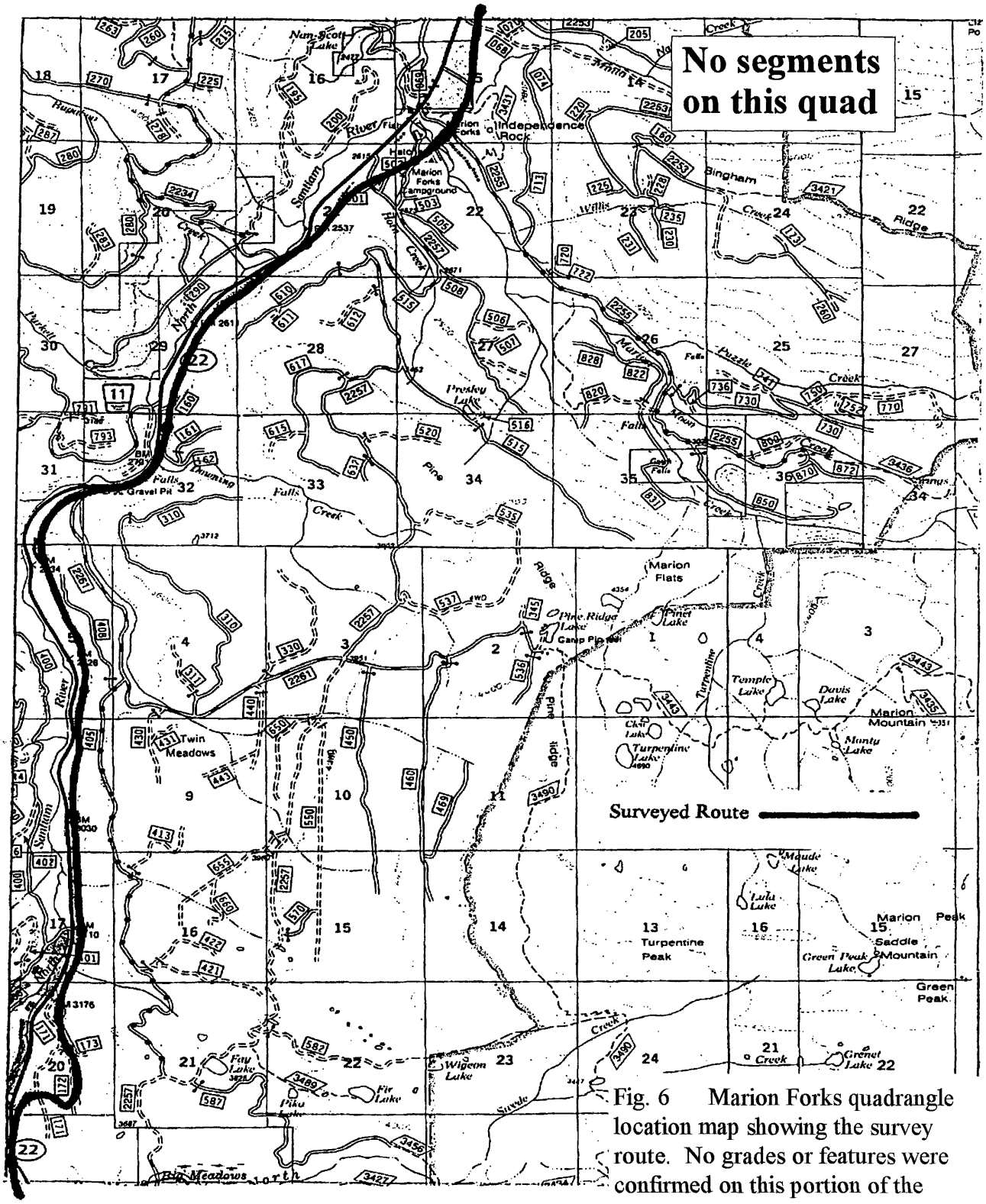


Fig. 6 Marion Forks quadrangle location map showing the survey route. No grades or features were confirmed on this portion of the survey.

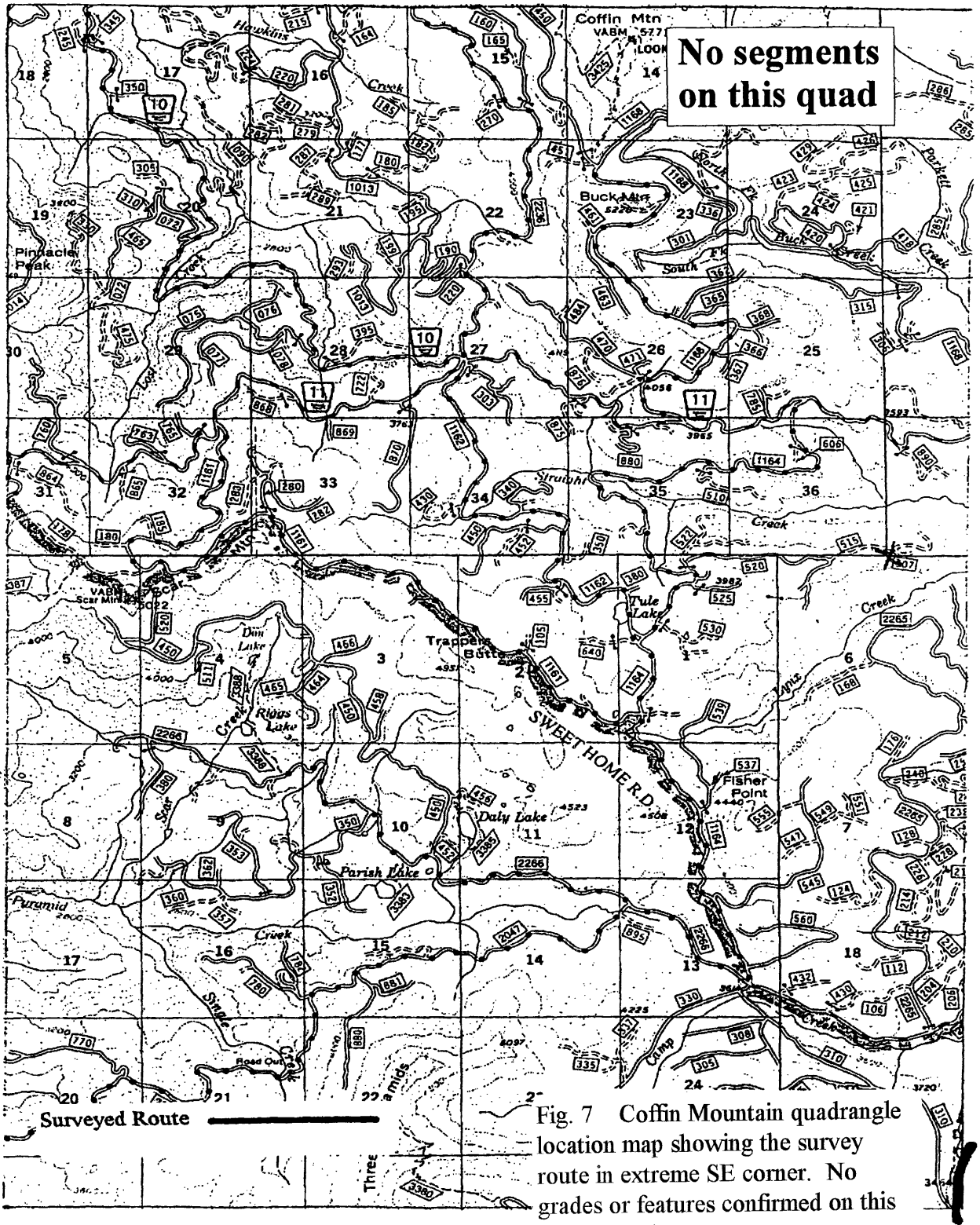


Fig. 7 Coffin Mountain quadrangle location map showing the survey route in extreme SE corner. No grades or features confirmed on this portion of the survey.

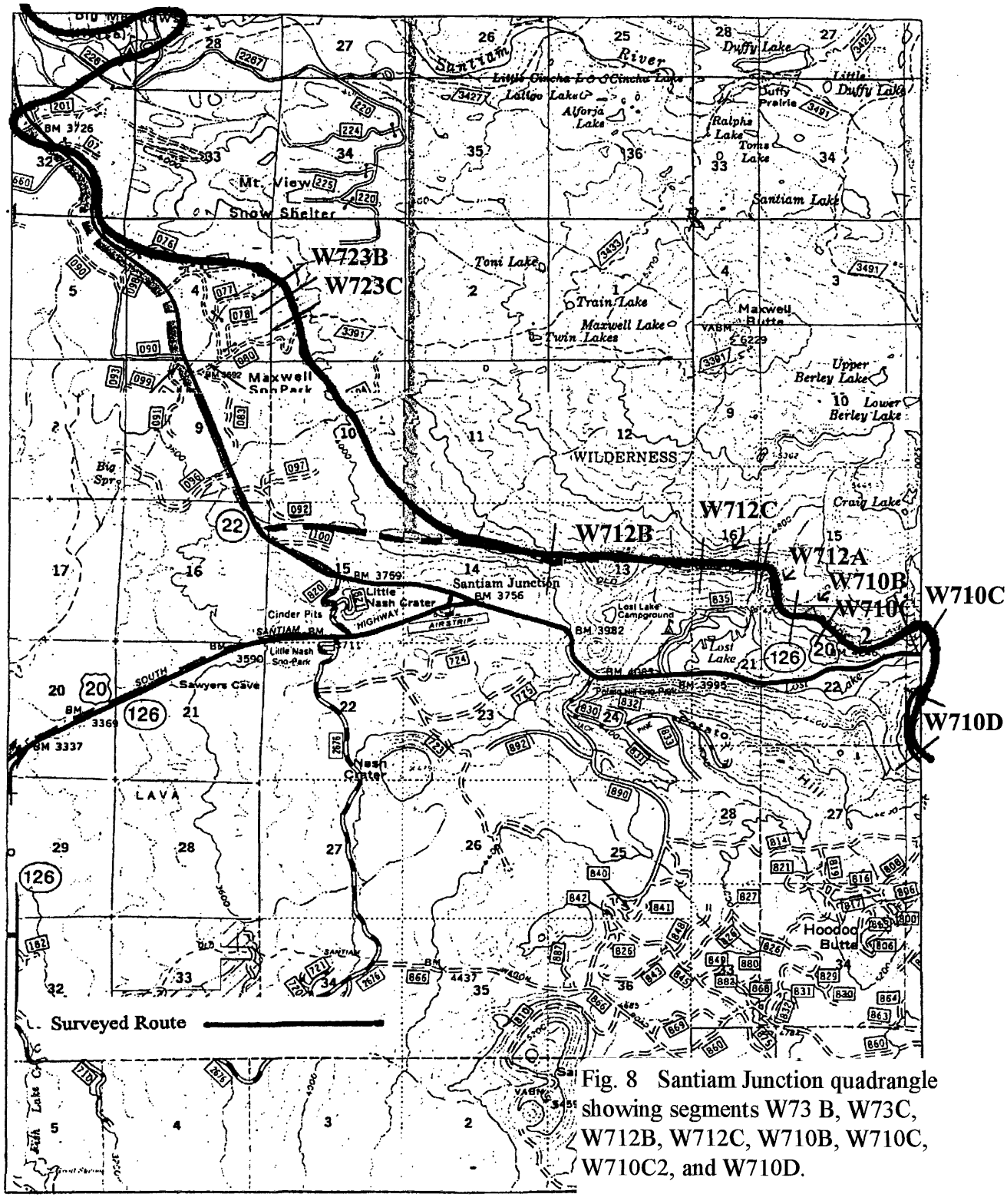


Fig. 8 Santiam Junction quadrangle showing segments W73 B, W73C, W712B, W712C, W710B, W710C, W710C2, and W710D.

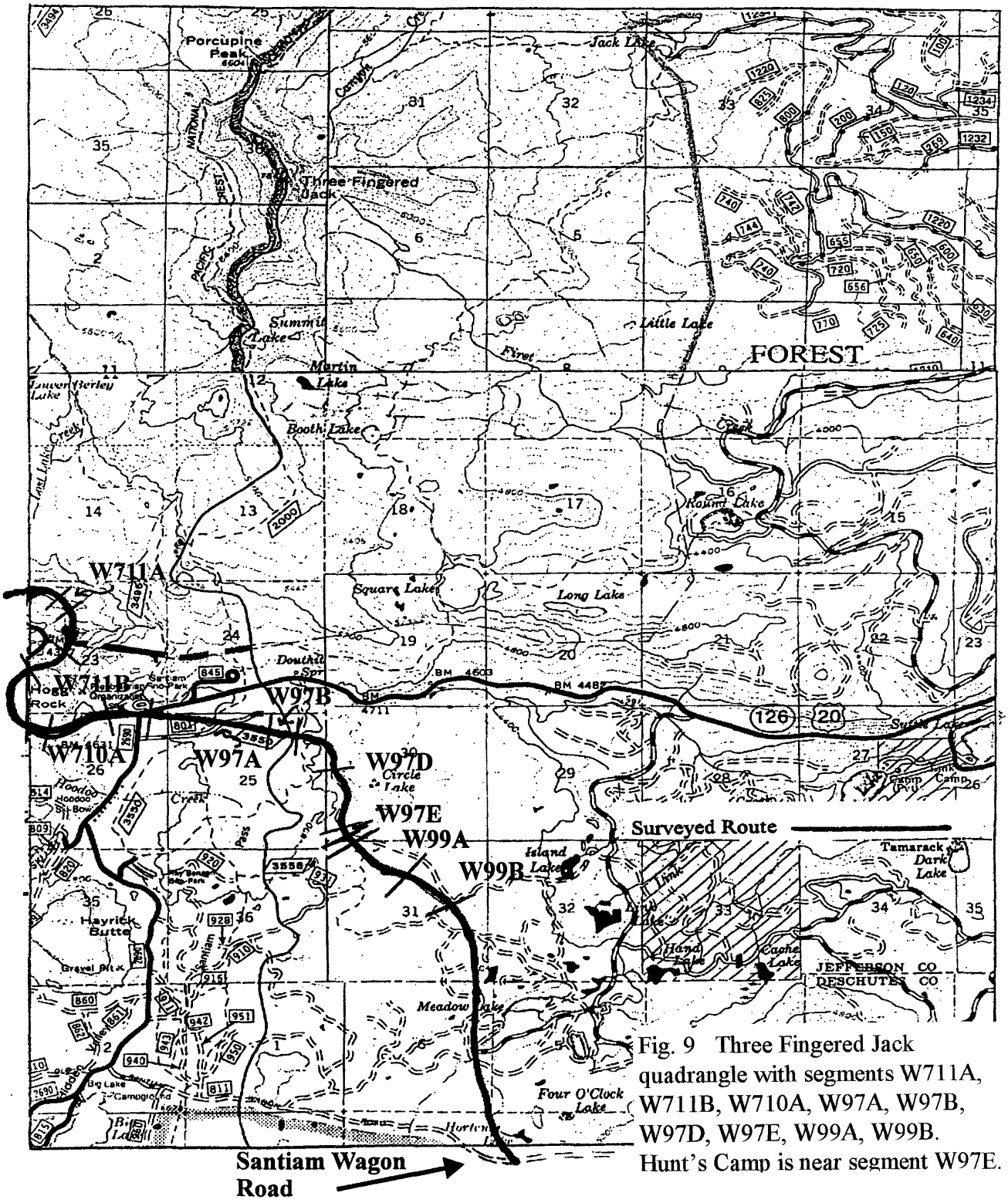


Fig. 9 Three Fingered Jack quadrangle with segments W711A, W711B, W710A, W97A, W97B, W97D, W97E, W99A, W99B. Hunt's Camp is near segment W97E.

Fig. 10 Col. Thomas Egenton Hogg in Confederate uniform, 1862 photo, OHS archive.

Fig 11 Historic photo of Oregon Pacific construction camp on North Santiam River. Location unknown, date unknown [c.1886-8]. Lloyd Palmer collection.

Fig. 12 **1936 photo** Grade with rail at summit of Hogg Pass. Photo from Sawyer Party, DCHS archives.

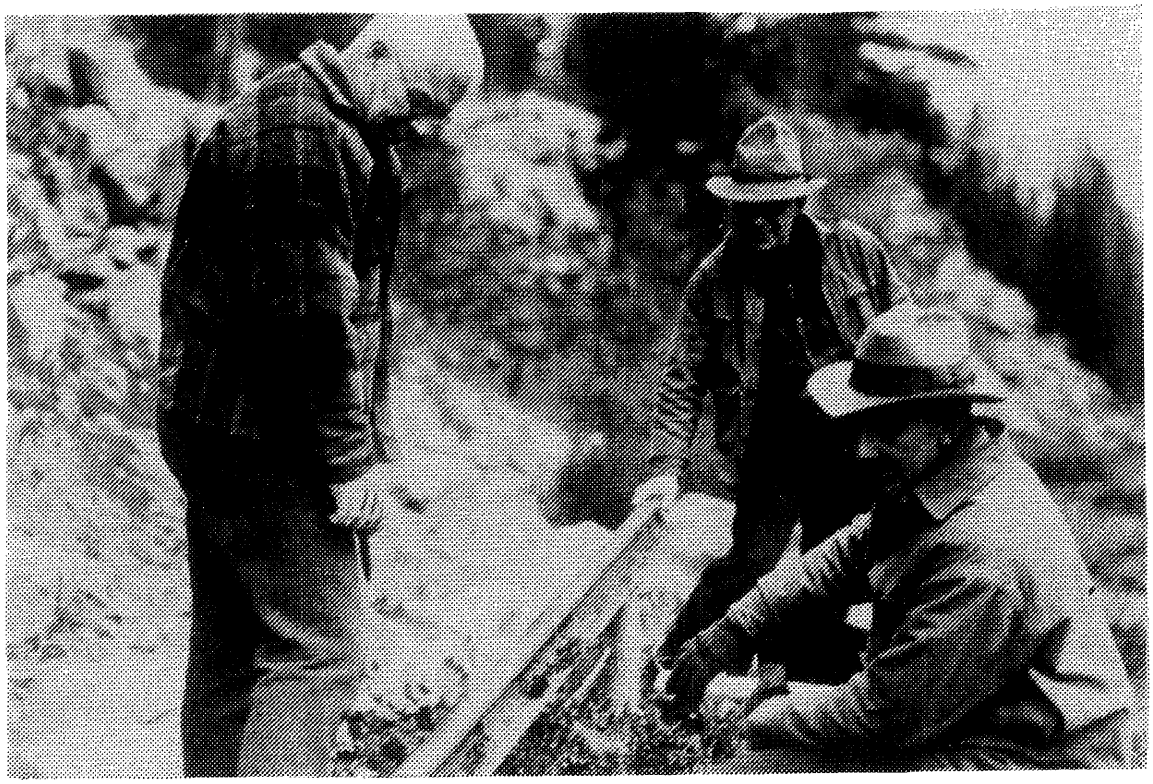


Fig. 13 **1936 photo** Judge Robert Sawyer with party at summit. Photo from DCHS archives.

Fig. 14 **1936 photo** Judge Robert Sawyer with party near summit. Photo from DCHS archives.

Fig. 15 **1949 photo** Tram cart tracks on grade with strap iron rails near the Lost Lake Creek trestle location. Paul Hosmer photo, Lloyd Palmer collection.

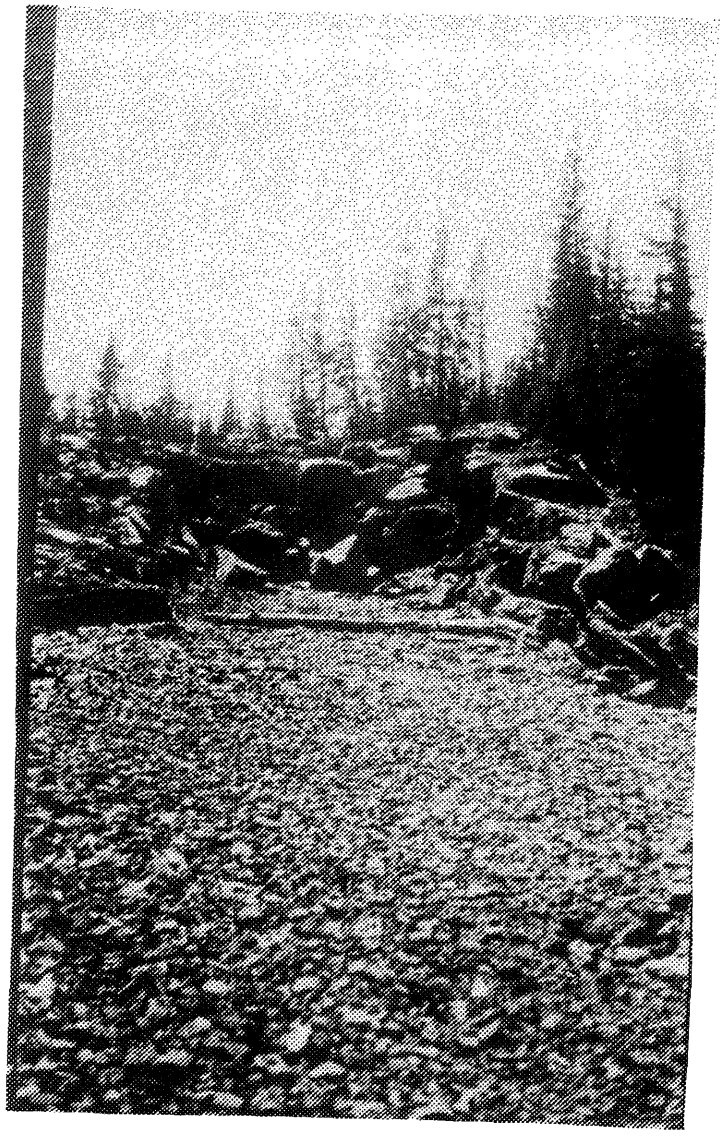
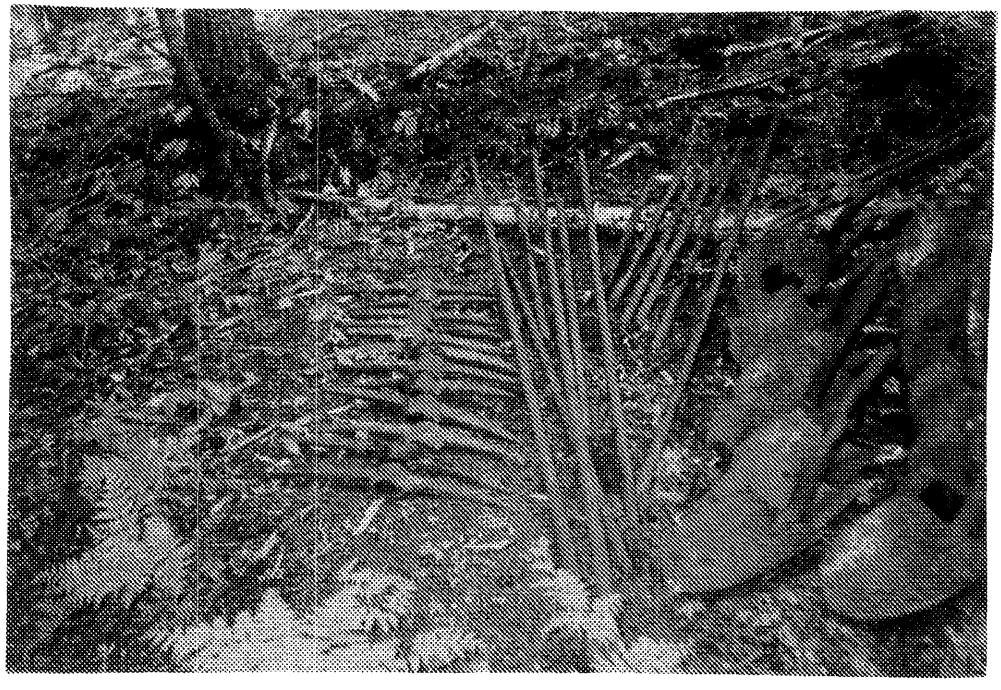


Fig. 16 **1949 photo** Grade in rock cut near Hunt's Camp, segment W97E. Paul Hosmer photo, Lloyd Palmer collection.

Fig. 17 **1993 photo** Volunteer crew on PIT excavation of Lost Lake Creek Trestle site, segment W710C2.

Fig. 18 **1993 photo** Construction tools excavated in ARPA recovery project, segment W710C2.



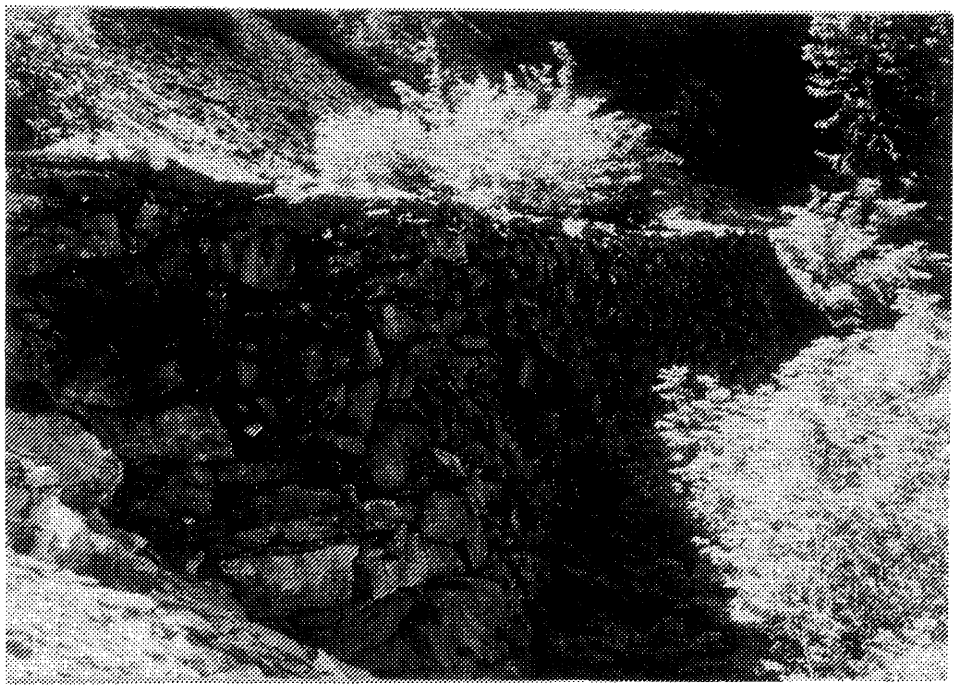


Fig. 19 1996 photo Stone wall supports grade on segment W710B. This wall was built by G.B. Hunt's workers in 1887.

Fig. 19 1996 photo Grade segment W723A near Tunnel Creek camp site, looking east. Note wide, elevated grade suitable for main line railroad service.

Fig. 20 1996 photo Grade segment W723A near Tunnel Creek camp site, looking east. Gradient here is less than 1%.

Fig. 21 1996 photo Stone dome oven collapsed at Tunnel Creek camp site, segment W723A.

Fig 22 1996 photo Stone dome oven intact at Tunnel Creek camp site, segment W723A.

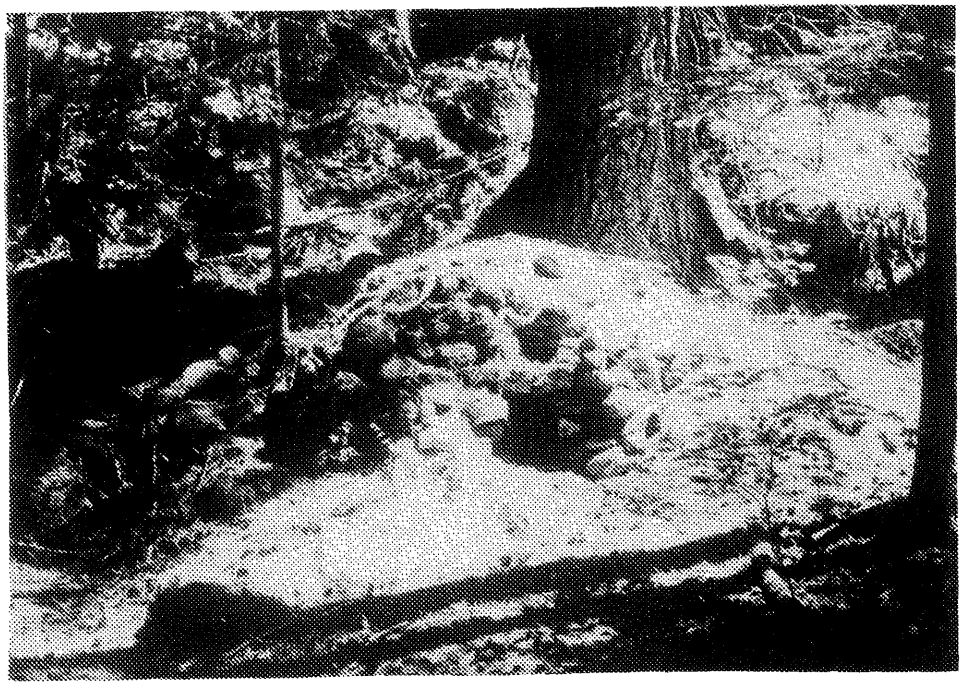


Fig 23 1996 photo Steel tire from construction dump cart, Pamelia Creek segment W725A.

Fig. 24 1996 photo Cast iron skein from Pamelia Creek, segment W725A.

193 PIT Project

Willamette Nat'l Forest
McKenzie Ranger Dist.
HR # 07-3004
(Areas C, D and E)

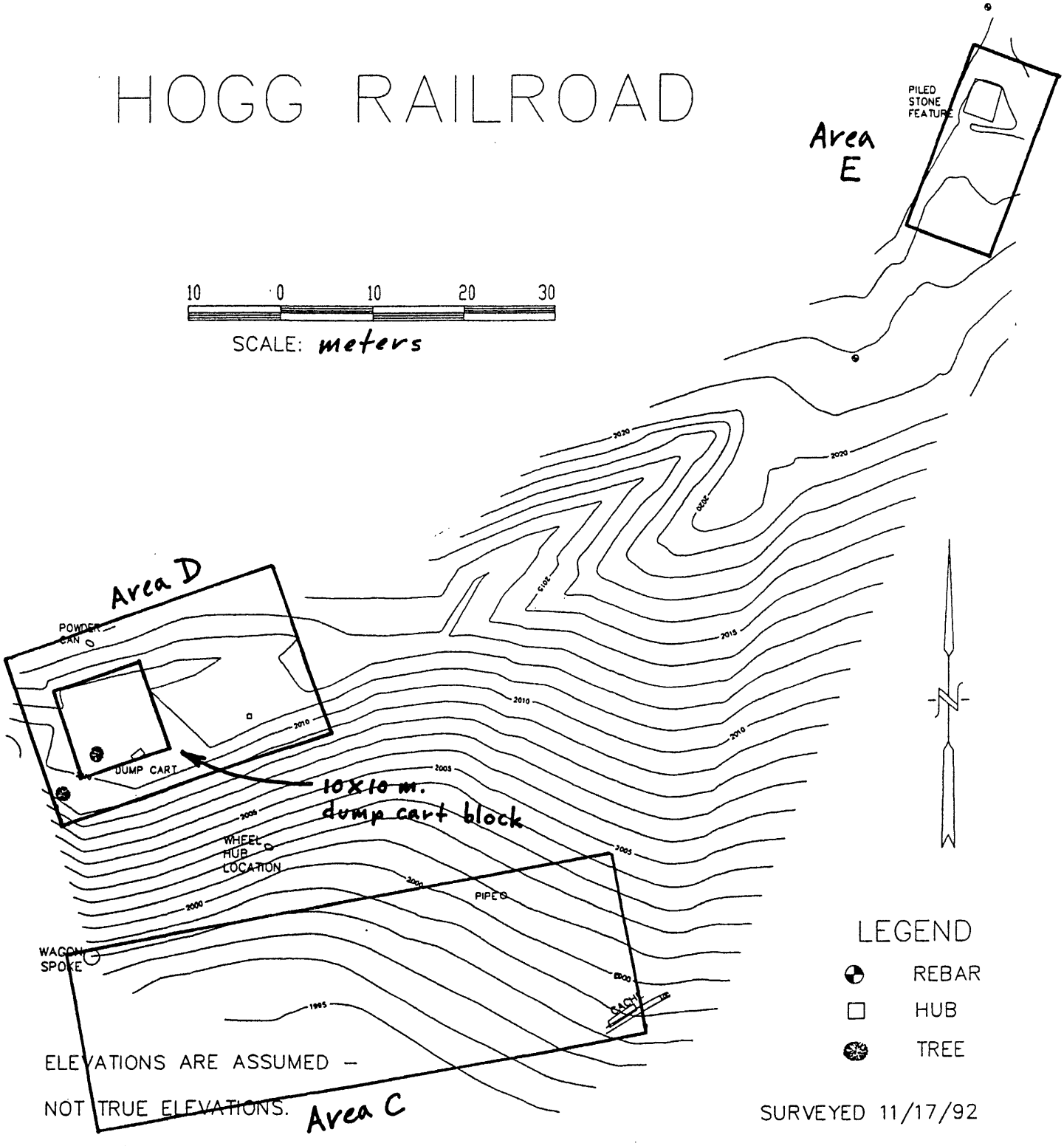


Fig. 25 Sketch map from 1993 PIT excavation at Lost Lake Creek Trestle site (E. Bergland, 1993)

8/93

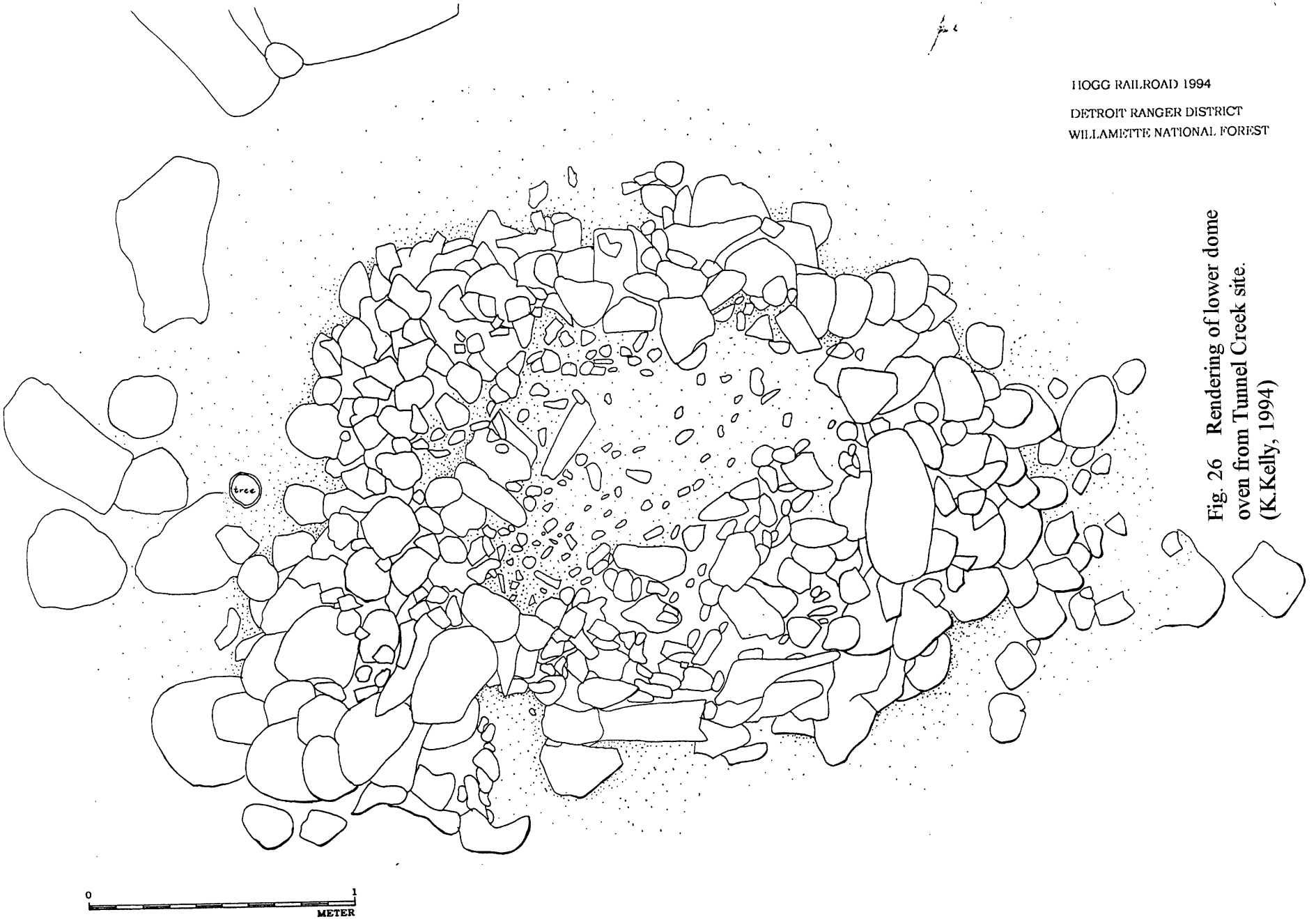
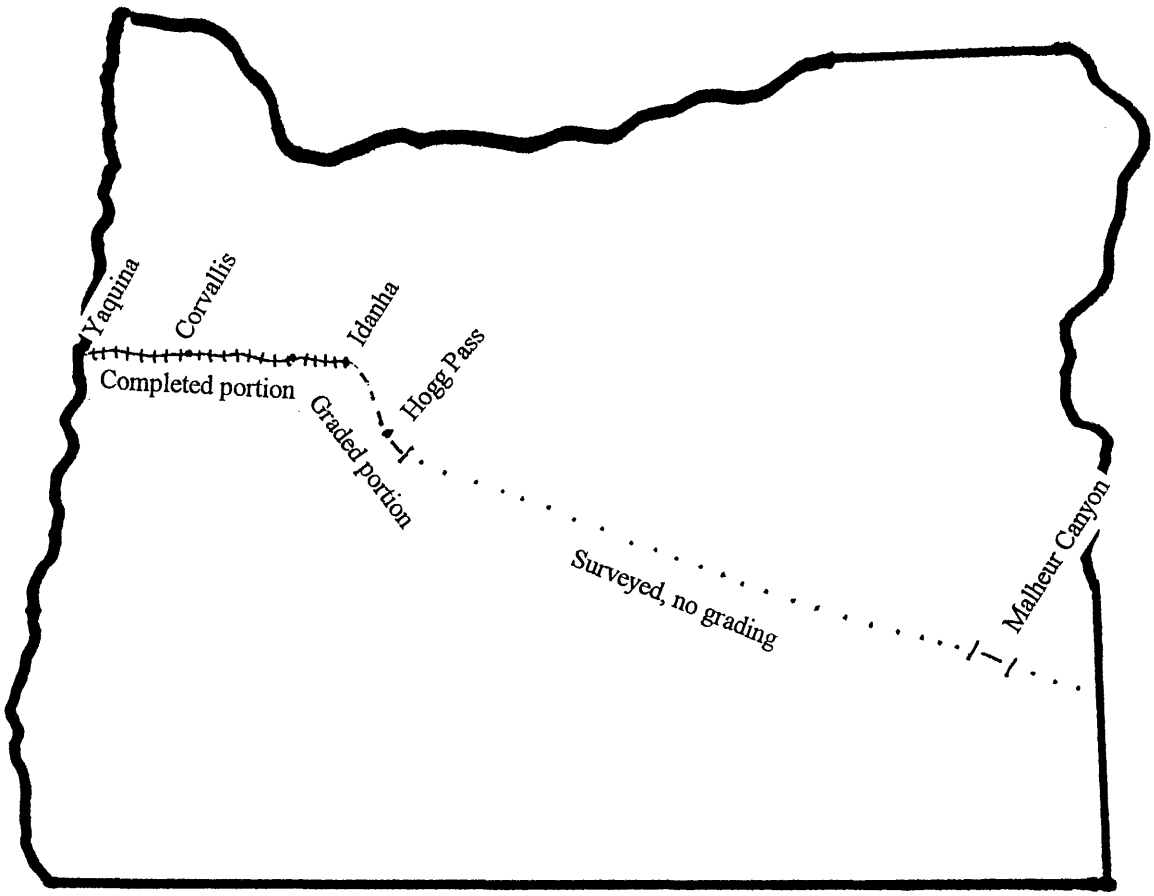


Fig. 26 Rendering of lower dome oven from Tunnel Creek site. (K.Kelly, 1994)

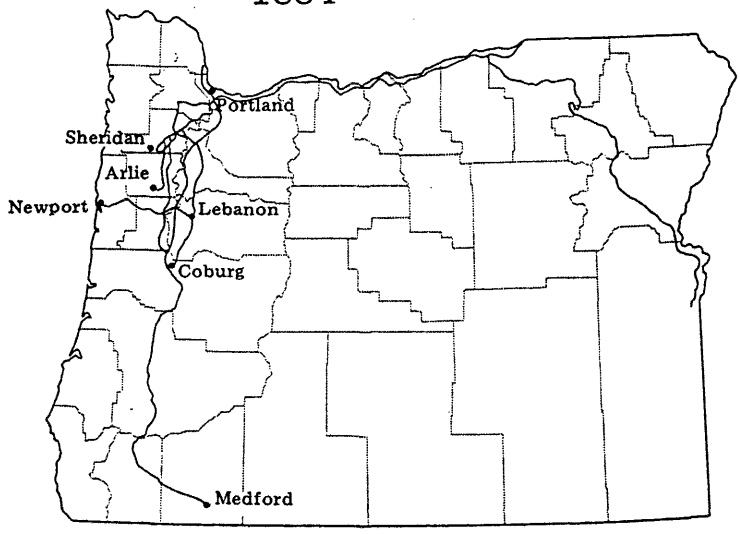
Fig. 27 Rendering of upper dome oven from Tunnel Creek site (K. Kelly, 1994)

OREGON PACIFIC RAILROAD

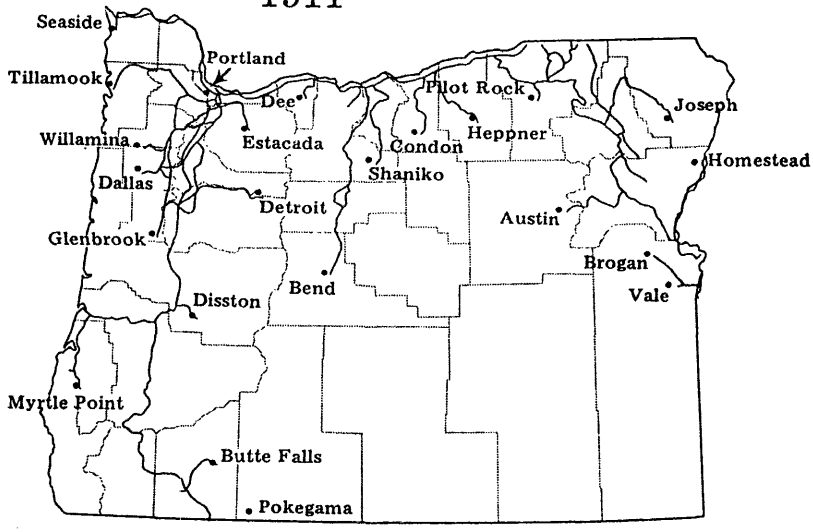


OREGON RAILROADS

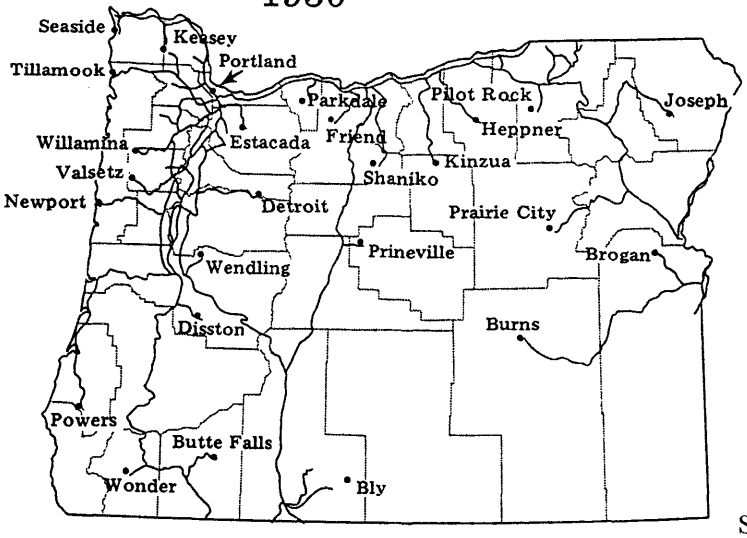
1884



1911

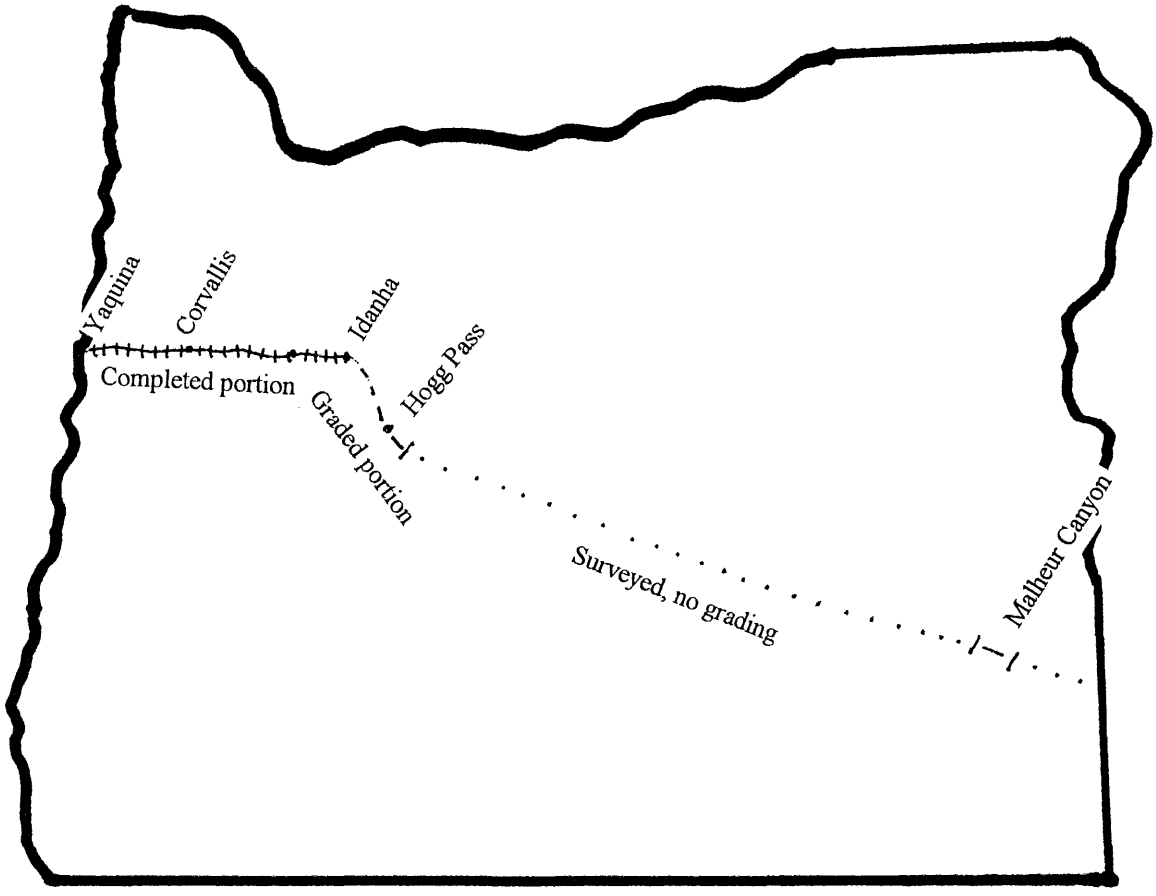


1930



Source: William Loy, *Atlas of Oregon*

OREGON PACIFIC RAILROAD



Oregon Pacific Railroad Nomination
Schedule of Photos
Marion, Linn, and Jefferson Counties,
Oregon

Photo 1	Portrait of Thomas Egenton Hogg, source and date unknown. Oregon Historical Photo OrHi 88319
Photo 2	Retaining wall of stone on the grade near the summit of Hogg Pass. This portion of the grade was built in 1887. Segment W711b, looking east
Photo 3	Grade at Tunnel Creek camp, segment W723a looking west
Photo 4	Grade at Tunnel Creek camp, segment W723a, looking east.
Photo 5	Dome oven at Tunnel Creek camp, site 18-04-435, lower oven, dome intact
Photo 6	Dome oven at Tunnel Creek camp, site 18-04-435 upper oven, dome collapsed.
Photo 7	Steel cart tire at Pamelia Creek, segment W725a
Photo 8	1936 photo of track at summit, Hogg Pass. Track was removed during World War II. Segment W710a, orientation unknown, Deschutes County Historical Society photo
Photo 9	1936 photo of track at summit, Hogg Pass. The man standing on the rail is Judge Robert Sawyer, Oregon Highway Commissioner. Segment W710a, orientation unknown, Deschutes County Historical Society photo
Photo 10	1936 photo of rock work on grade near Hunt's camp. Segment W97e, looking east into cut, Deschutes County Historical Society photo

NPS Form 10-900-a
(8-86)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number _____ Page _____

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 99001285 Date Listed: 10/29/99

Oregon Pacific Railroad Linear Historic District	Jefferson/Linn Marion	OR
Property Name	County	State

N/A
Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Signature of the Keeper — Date of Action: 10/29/99

==========

Amended Items in Nomination:

Significance

Area of Significance. *Archeology--Historic (Non-aboriginal)* is added as an area of significance under Criterion D.

This information was confirmed with the U.S. Forest Service.

DISTRIBUTION:
National Register property file
Nominating Authority (without nomination attachment)