

8-8-2004

Ex. 277-US-431

R. Nawa  
*Oregon Department of Fish and Wildlife*

C. Huntington  
*Oregon Department of Fish and Wildlife*

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Stream: Williamson River  
Tributary to: Lower Klamath Lake  
Survey Type: ODFW Stream Habitat  
Access: Canoe  
Reach: 4 (Units 39-41)  
Start: T34S-R07E-S09NE  
Quads: Soloman Butte, Fort Klamath  
Date Surveyed: 8 August 04  
Surveyors: R. Nawa, K. Hartzell  
Report: R. Nawa, C. Huntington  
Distance Surveyed: 3.0 km

#### Reach Description

Reach 4 was Spring Creek to the upper end of the State Park Boundary where Forest Service land begins.

#### Land Use

Land use is campsites in Collier State Park.

#### Valley and Stream Channel Geometry

The river was in a 500 m wide valley. High terraces sloped abruptly to form narrow floodplains adjacent to the 17 m wide river. Average sinuosity was 2.0 with most of the meandering concentrated in the upper part of the reach. The stream was a continuous glide with stream gradient close to zero percent (Photo 44).

#### Substrate

The streambed was very fine textured. An estimated 67 percent of the streambed was sand/organics, 3 percent gravel, 5 percent cobble, 8 percent boulder, and 17 percent bedrock.

#### Spawning Gravel

The mainstem river had no spawning gravel because no riffle habitat was present. Larkin spring feeds an unnamed tributary (Sunnybrook Creek?) to the Williamson River. This 13°C creek had an estimated 160 m<sup>2</sup> of spawning gravel in the first 80 m. Considerably more spawning gravel was out of view on private land (U40; map).

#### Riparian Vegetation

Patches of willows and hardwoods border the river in low lying areas. Conifer forests dominated by ponderosa pine are further back from the river on high terraces. Grass cover was 58% in the riparian zones and shade averaged 32 percent. Streambank erosion (6%) was primarily at sharp meander bends in contact with high terraces. Grass and willows were adequate to stabilize streambanks where the channel was straight or only gently meandering.

#### Wood

Wood debris (1 piece/100m) was not affecting channel morphology (i.e. wood is not storing sediment or causing local scour). Very few conifers are located close enough to the stream to contribute wood debris.

Rearing and Adult Holding Habitat

The Williamson River in this reach is primarily a continuous glide or pool from its confluence with Spring Creek to the Collier State Park boundary, a distance of about 3 km. Maximum depths averaged about 1.8 m. A 0.5 ha off-channel pond near the upper end of the reach may provide important rearing habitat for salmonids and sucker fish. (Map; Photo 51).

Stream Temperature

Reach 4 had relatively low flows and high stream temperatures (19.0 °C at 1350 pdt) because it is located above Spring Creek.

Photo 44 Unit 39  
The Williamson River  
upstream from  
confluence with Spring  
Creek is a continuous 3  
km glide with maximum  
depths of about 1.8 m.

Photo 51 Unit 41  
A natural 0.5 ha off-  
channel pond at the upper  
end of the reach may be  
important for juvenile fish  
rearing.

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589000m E. 590000m E. 591000m E. NAD27 Zone 10T 592000m E.

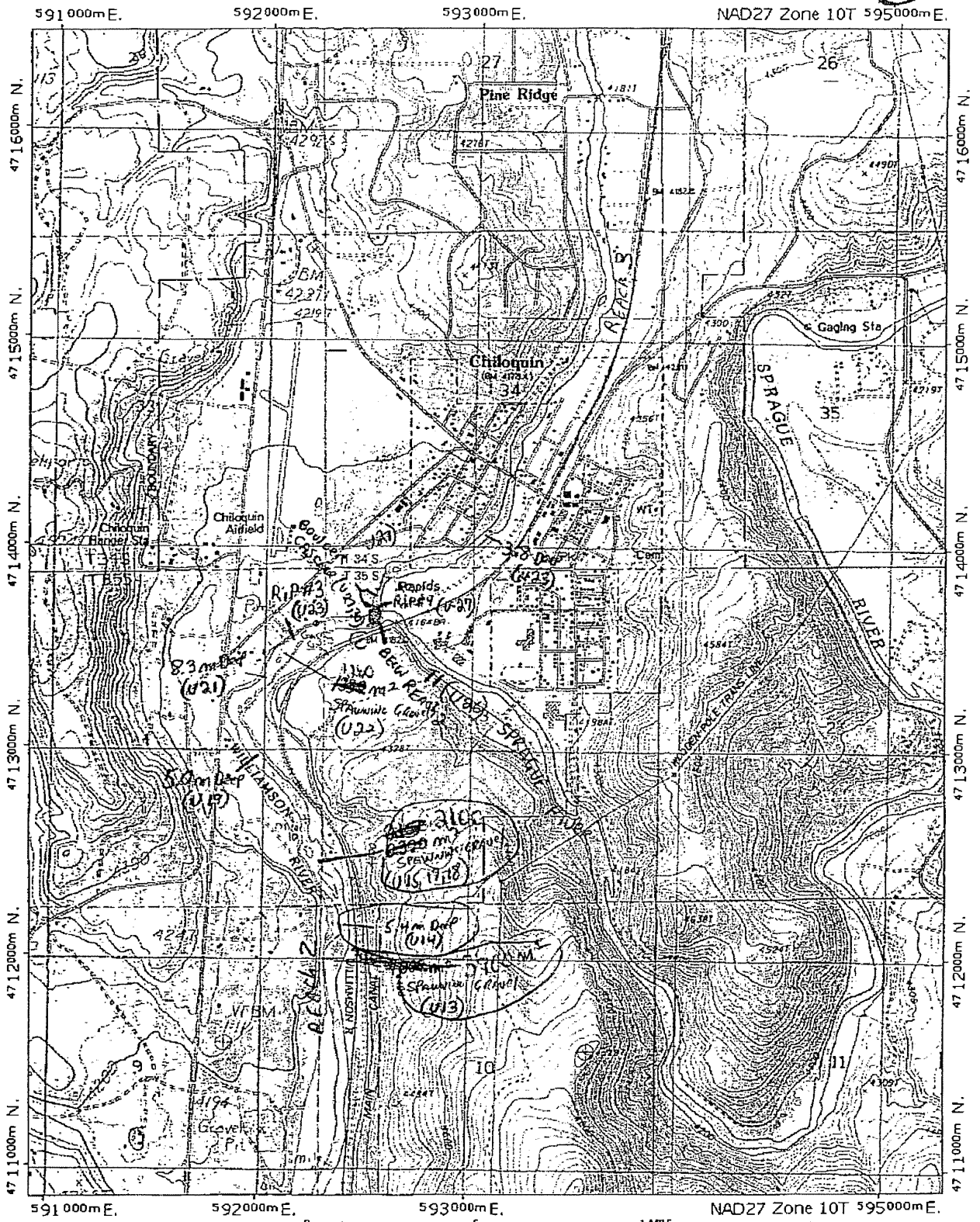
0 5 1 MILE

0 1000 FEET 0 500 1000 METERS

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Williamson R.

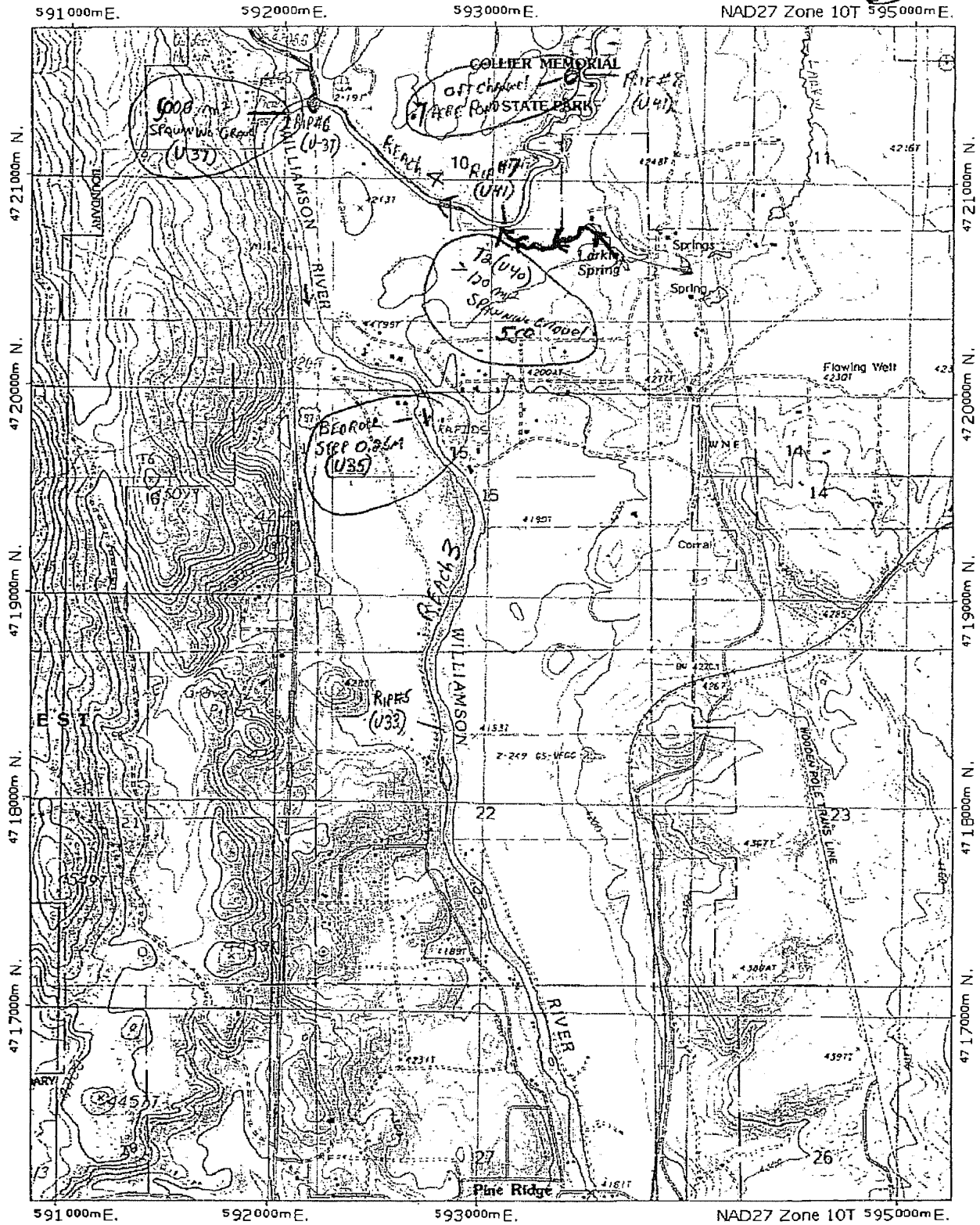
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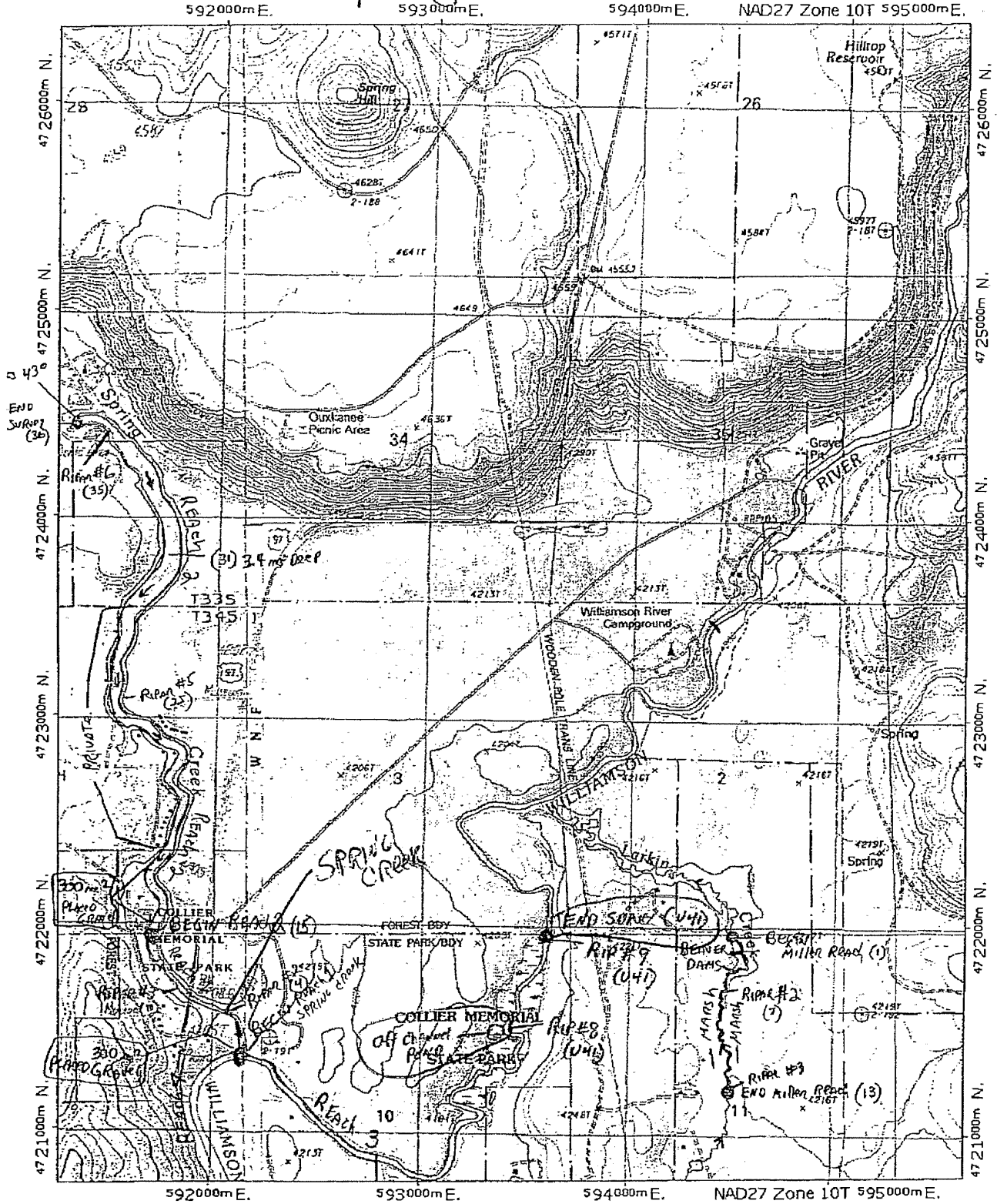
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# Spring Creek

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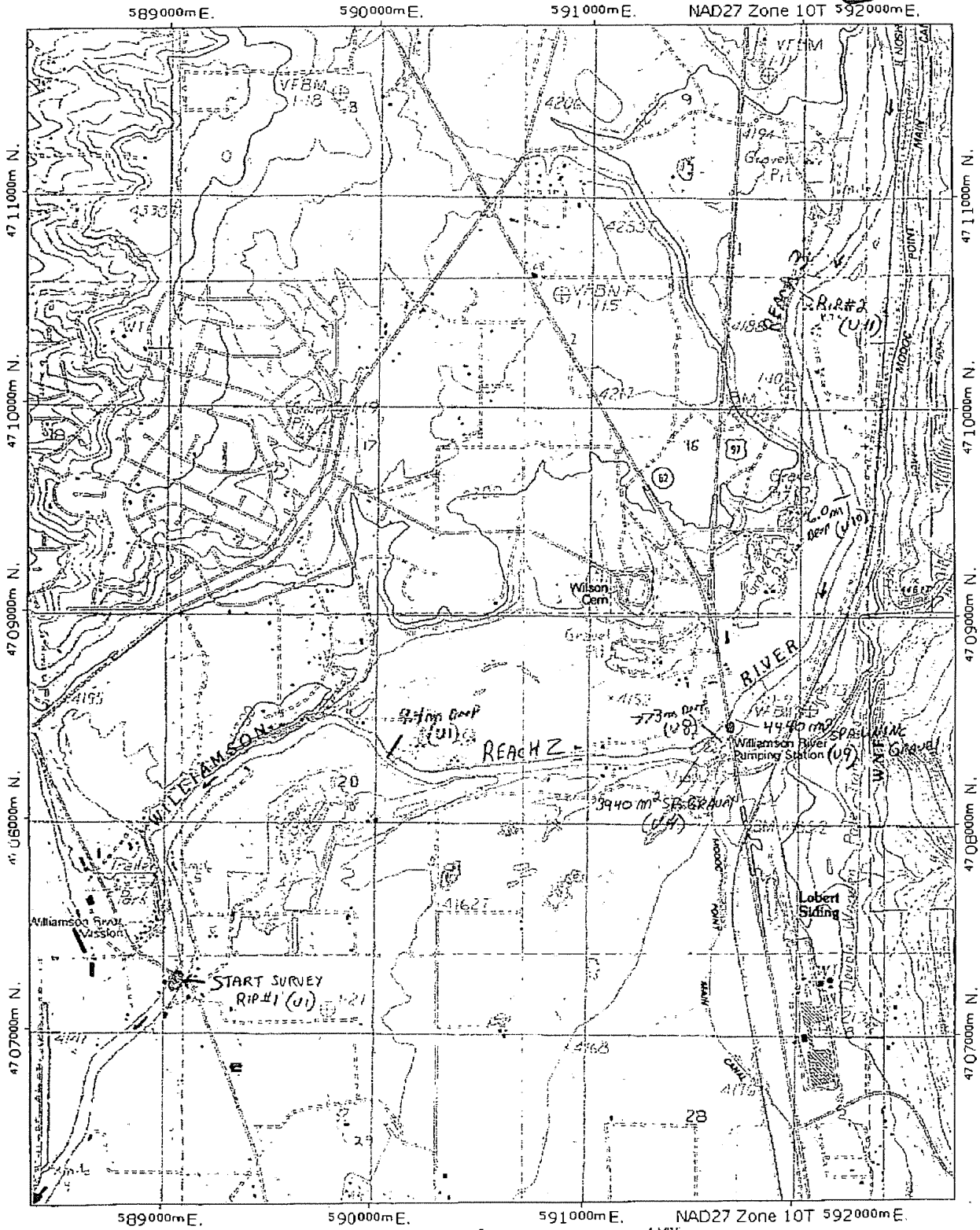


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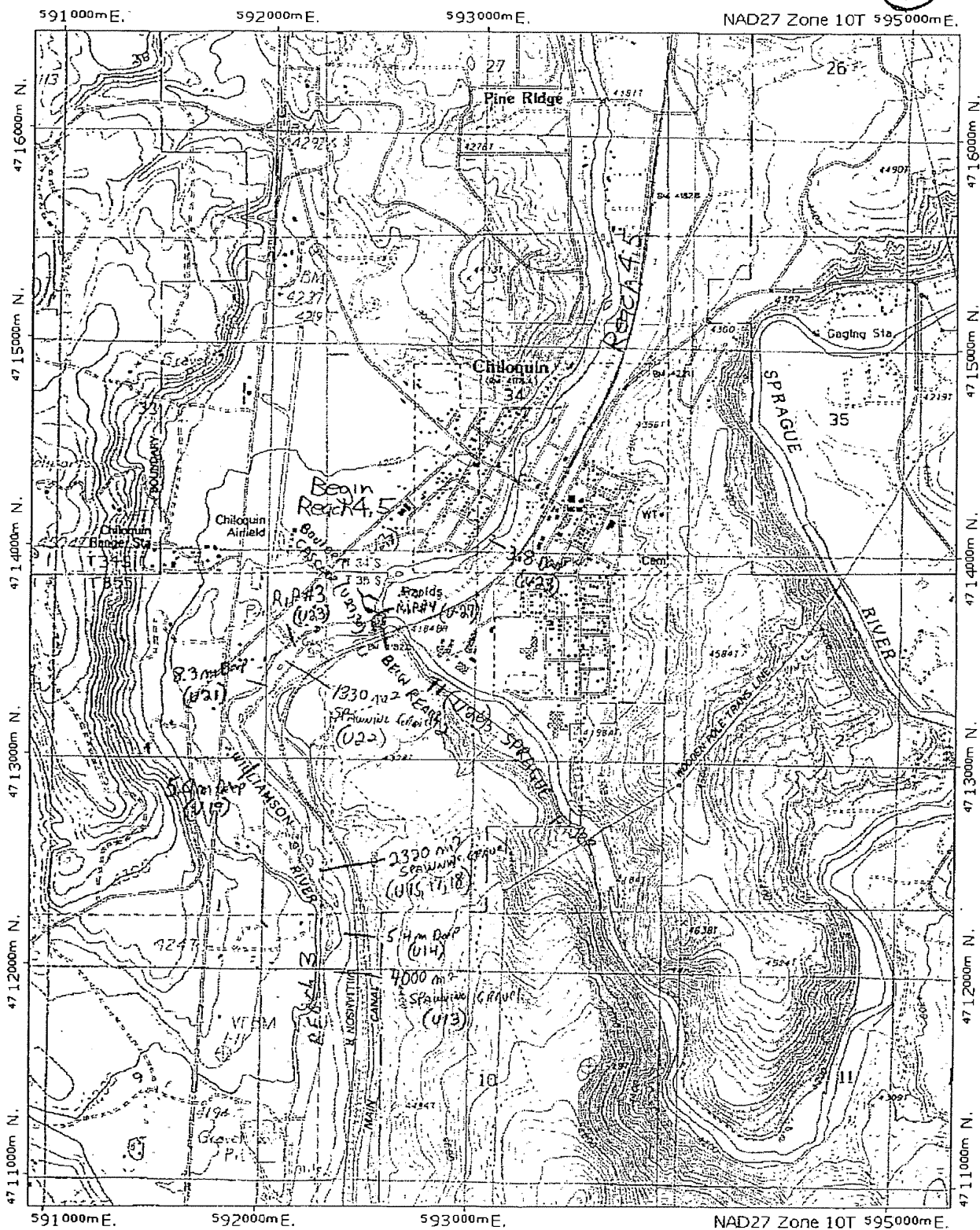
# Williamson River

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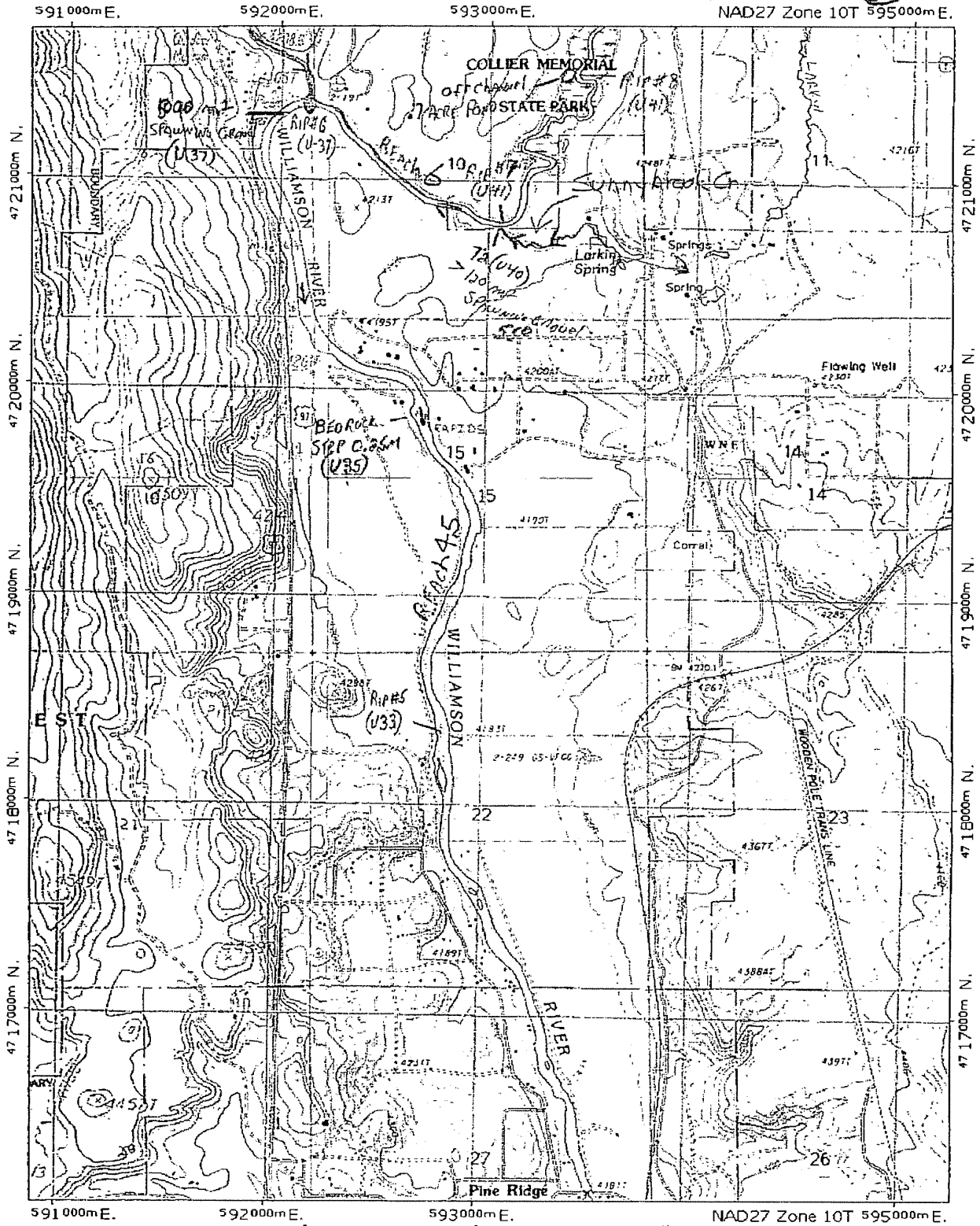
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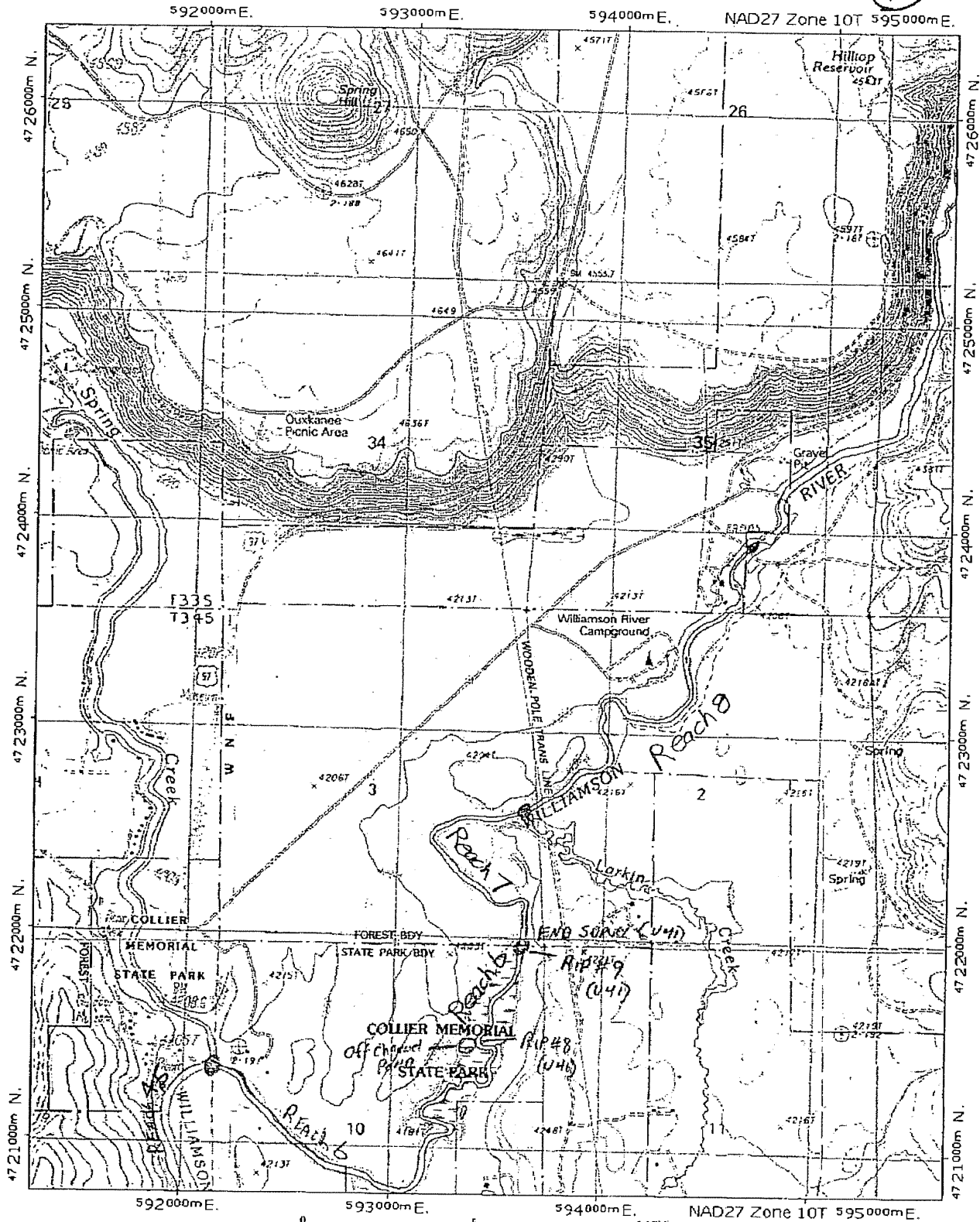
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