

OREGON DEPARTMENT OF TRANSPORTATION

AGGREGATE SITES

DISTRICT 7

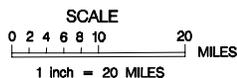
JUNE 2002

ROUTE AND HIGHWAY NUMBERS

-  INTERSTATE
-  U.S. ROUTE
-  OREGON ROUTE

LEGEND

-  COUNTY BOUNDARY
-  00-000-0 SITE ID NUMBER
-  ● SITE LOCATION SYMBOL



List of Sites in District 7

Source Numbers

06-012-3	2
06-019-3	4
06-025-3	6
06-028-3	8
06-029-3	10
06-030-3	12
06-037-3	14
06-096-3	16
08-022-3	18
08-028-3	20
08-048-3	22
08-061-3	24
08-088-3	26
08-102-3	28
10-001-3	30
10-005-3	32
10-020-3	34
10-024-3	36
10-026-3	38
10-027-3	40
10-028-3	42
10-030-3	44
10-031-3	46
10-033-3	48
10-035-3	50
10-036-3	52
10-037-3	54
10-041-3	56
10-042-3	58
10-043-3	60
10-044-3	62
10-045-3	64
10-050-3	66
10-054-3	68
10-055-3	70
10-063-3	72
10-070-3	74
10-086-3	76
10-087-3	78
10-250-3	80
10-261-3	82
18-008-4	84

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Coos	McLeod Quarry			07	0035	16.1	28S	12.0W	30
File ID		Source #	Date Visited	Map #			Type of Site		
14325, 39824		06-012-3	6/08/1999	1R-2-1330			Quarry		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #				
43°07'13.97829"	124°10'25.38077"	37.394	29.51	<4 acres					
Comments									
GPS acquired along Highway 42 and locked access gate.									
Rock Type	Unit	Color		Weathering			Jointing		
Basalt	Tsr	Olive Black (5Y 2/1)		Fresh to Slight			Moderately Fractured		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Fair			R2 to R3	159	500,000	1,073,250			
Potentially Significant Site	Why			Open/Closed	Direction				
Yes	Large acreage, room to work, close to state highway.			Closed	The Coquille River is west across Highway 42 about 600 meters.				
Adjacent Land Use									
Farm/Residential									
Remarks									
This site is adjacent to and east of Highway 42. The rock is a medium-grain submarine basalt. There is some mineral alteration that would degrade the rock specifications. The terrain is gradually sloping, with up to 5 feet of overburden. There has been recent work at this location up in the second pit. Some of the material could be used as rip rap. There is no screening from Highway 42 and plenty of room to work. You will need to drill and shoot the rock. The eastern-most pit wall is approximately 600 feet from the highway with our property line another 1300 feet beyond that. There are power lines close to the pit face that will need to be addressed if we wish to expand the quarry.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									

E



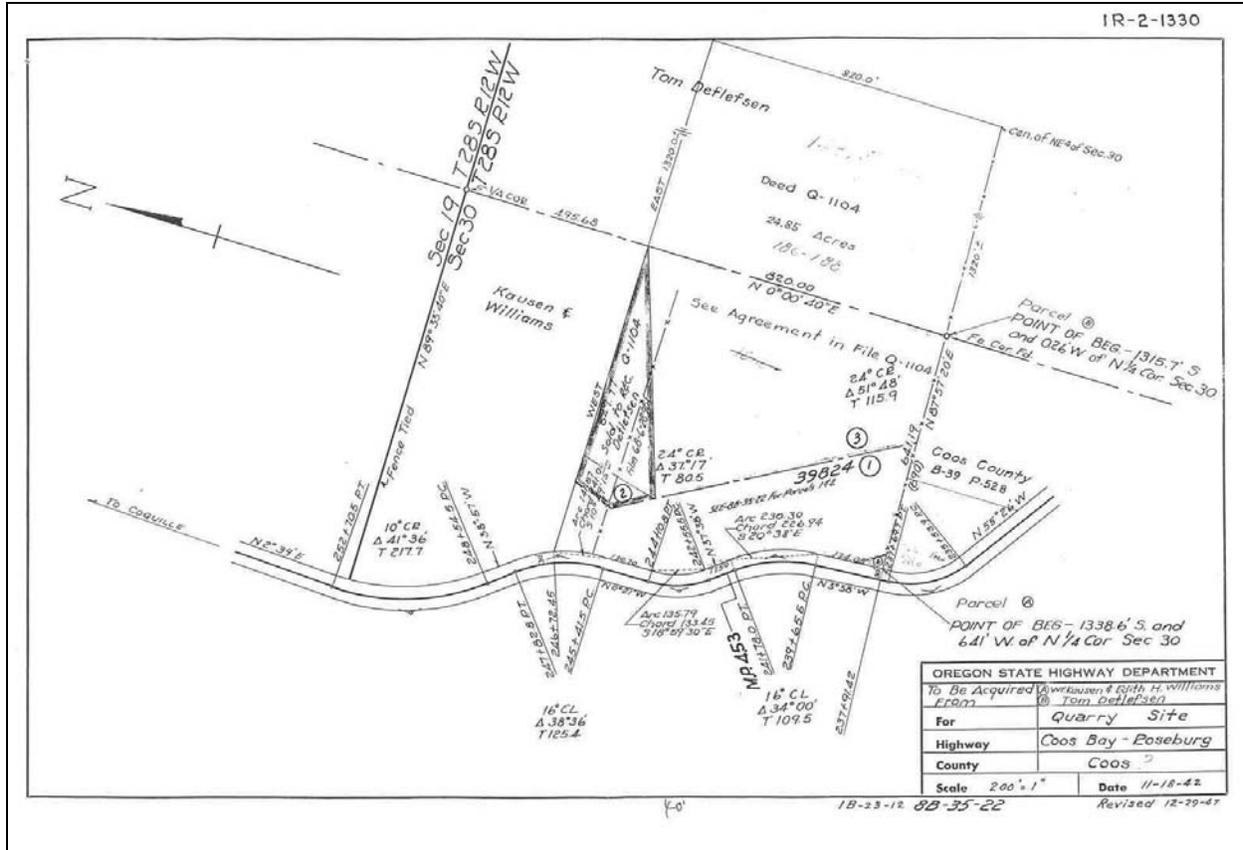
Looking east from the access point up to the pit.

N

S



180-degree view of the pit and the pit face. The arrow shows the upper pit.



Close-up showing the jointing patterns in the pit.
The arrow points out the 4lb. maul.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Coos	Sugarloaf Quarry			07	0035	24.4	29S	12.0W	26
File ID		Source #	Date Visited	Map #			Type of Site		
11743, 31267, 06325		06-019-3	6/09/1999	1R-2-705			Road Cut		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
43°01'53.27123"	124°05'54.9185"	31.344	7.13	NA					
Comments									
GPS acquired at Highway 42 and roadcut.									
Rock Type	Unit	Color		Weathering			Jointing		
Basalt	Tsr	Dark Grey (N3)		Slight			Very Massive		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Fair to Poor			R2 to R3	164	100,000	221,400			
Potentially Significant Site	Why	Open/Closed		Direction					
No	The quality is in question.	Closed		To the south and across the highway is the Middle Fork of the Coquille River approximately 250 meters.					
Adjacent Land Use									
Forest									
Remarks									
This site is a road cut that is north of and adjacent to Highway 42. The rock is a medium-grain basalt that is soft due to mineral alteration. It is very massive with few fractures. There is no screening and limited to no room to work at this location. This road cut along the highway has been benched and is in very steep terrain. You would need to drill and blast the rock. If we want to realign the highway at a future date a development plan should incorporate working from the top down. The old alignment is now a private drive.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
2.46	2.96	16.8	30.2	19.6	17.8	2.7	20.9	5.4	
Material Use									
Quarry (1975)									



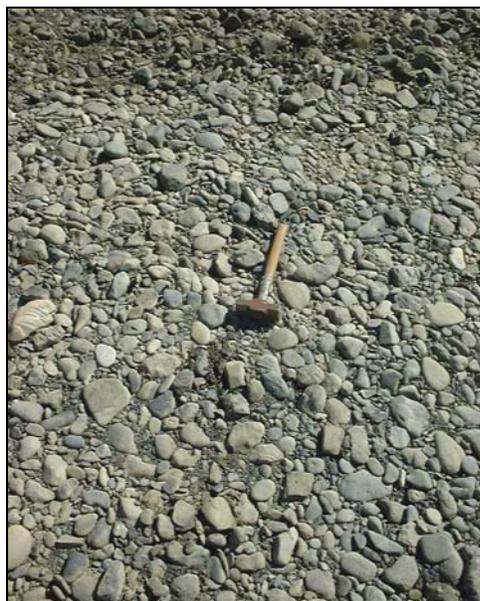
Looking across Highway 42 at the road cut.

Close-up of the basalt with the hammer for scale. Note the absence of any fracture or jointing within the basalt.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Coos	Watson Bar			07	0242	6.8	30S	12.0W	16
File ID		Source #	Date Visited	Map #			Type of Site		
17903, 17901		06-025-3	6/09/1999	1R-5-95			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°58'36.76085"	124°08'33.77353"	28.572	10.04	NA					
Comments									
GPS acquired at waste site 40 meters west of Highway 242.									
Rock Type	Unit	Color		Weathering			Jointing		
Metamorphic Gravel	NA	NA		NA			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Good			NA	120	1,000	1,620			
Potentially Significant Site	Why		Open/Closed	Direction					
No	Small quantity of aggregate.		Closed	Adjacent on both sides and in the South Fork of the Coquille River.					
Adjacent Land Use									
Farming/Forest									
Remarks									
This site along the South Fork of the Coquille River has good quality gravel. The dominant size gravel is in the cobble range (~12cm) with about 10% sand by volume. All of the gravel is restricted to the river channel with unconsolidated sand adjacent on the banks of the stream. The top of the gravel bar is about one foot above the river elevation. That would put almost all of the aggregate within the flood plane. The ground up by the highway is used as a stockpile site and is open to the public. There are about 1000 cubic yards of stockpiled material at this site. There is no gate at this site with public access to the river. There is a waste site up by the highway. The river channel is 20 feet below the stockpile site. The haul road is on the other side of the river. Possible Salmon Recovery.									
Final Comments									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
		20.0	6.8	3.8			7.7	2.0	
Material Use									
AC (1979)									

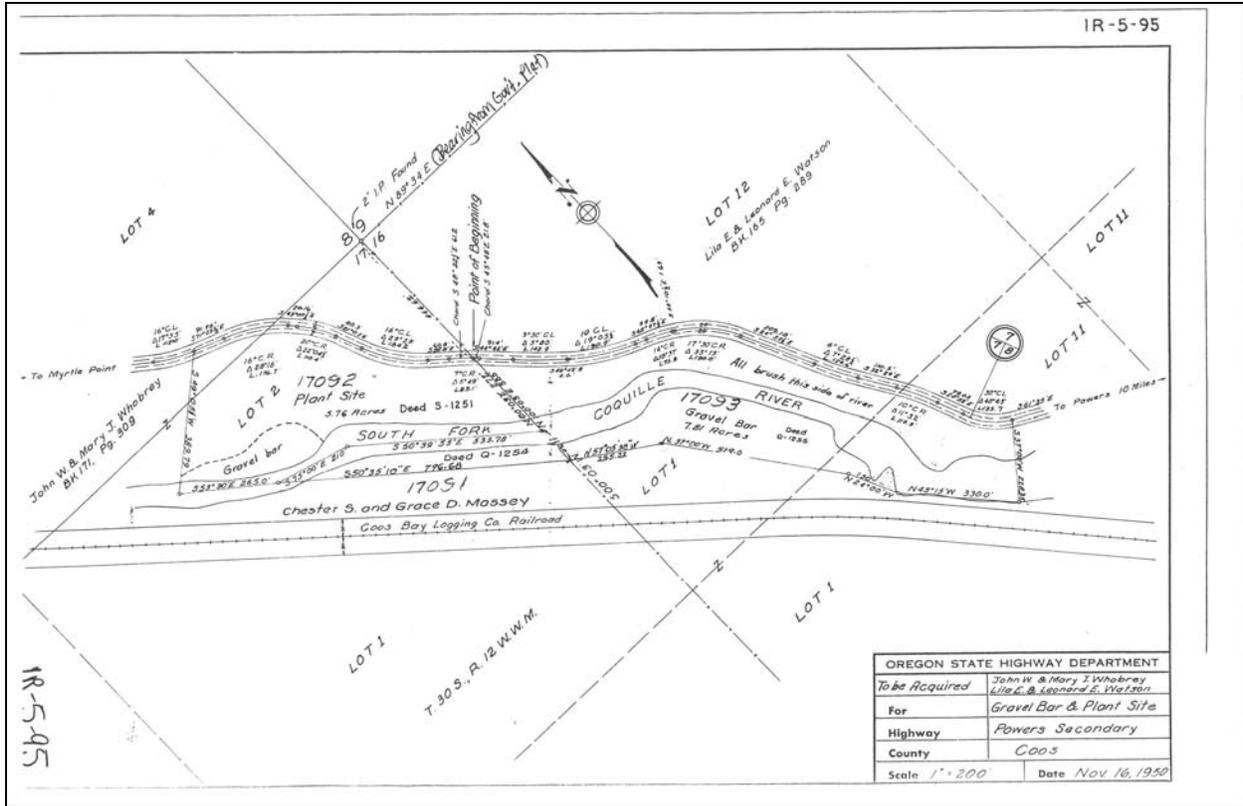
SE

N



Looking to the northwest at the gravel bar along the South Fork of the Coquille River.

Close-up view of the gravel at this site with the hammer for scale.



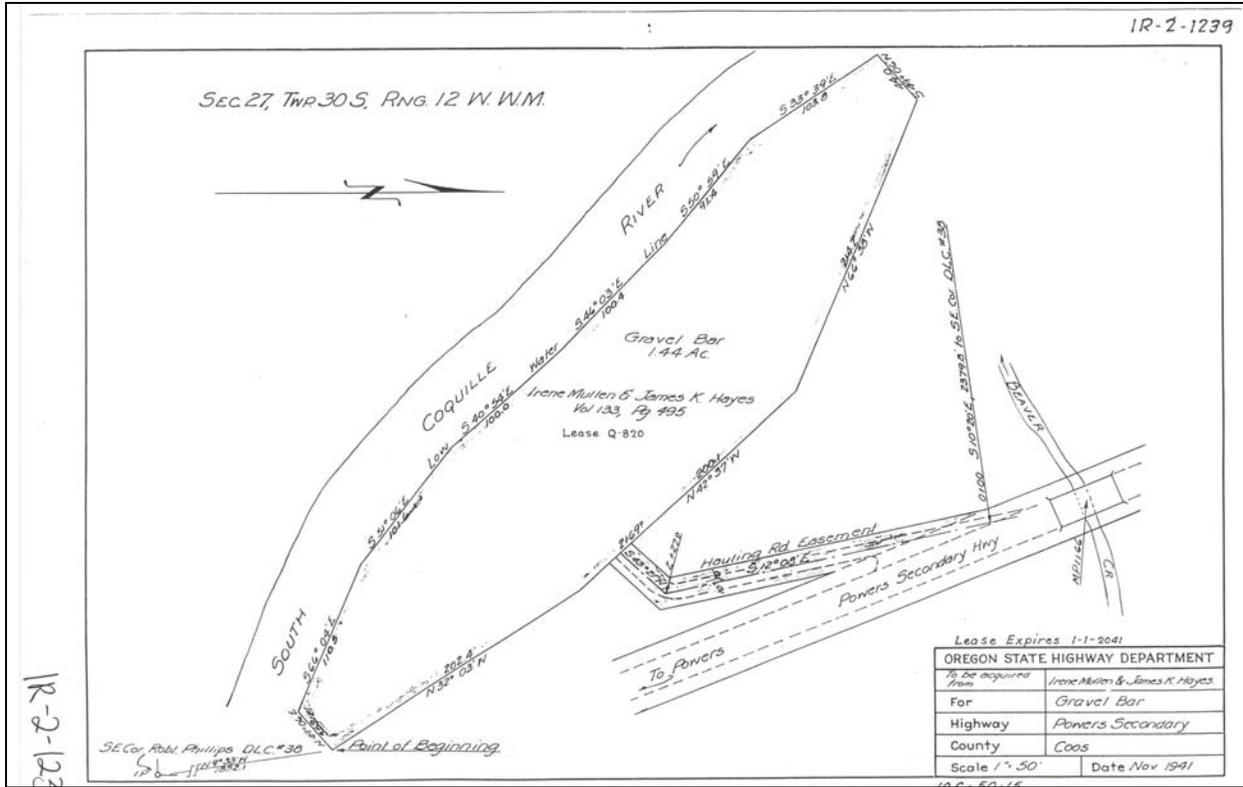
Aerial view of the gravel bar along the Powers highway.
There is a stockpile site adjacent to the highway.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Coos	Beaver Creek Bar				07	0242	11.6	30S	12.0W	27
File ID		Source #	Date Visited	Map #			Type of Site			
09892		06-028-3	6/09/1999	1R-2-1239			Gravel			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
42°56'23.70000"	124°05'59.08000"	61	1.53	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type	Unit	Color		Weathering			Jointing			
Metamorphic Gravel	NA	NA		NA			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
NA			NA	120						
Potentially Significant Site	Why	Open/Closed		Direction						
No	Depleted	Closed		Adjacent to the South Fork of the Coquille River and Beaver Creek.						
Adjacent Land Use										
Farming adjacent to the property.										
Remarks										
This site is depleted of any gravel. The property is located on the outside of the river radius and all of the gravel has moved down stream. This site is leased until Jan. 1, 2041. There is no gate and the site is open to the public.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										

S



View to the south of the absent gravel bar along the South Fork of the Coquille River. Lower left corner of the image is where Beaver Creek enters the river.

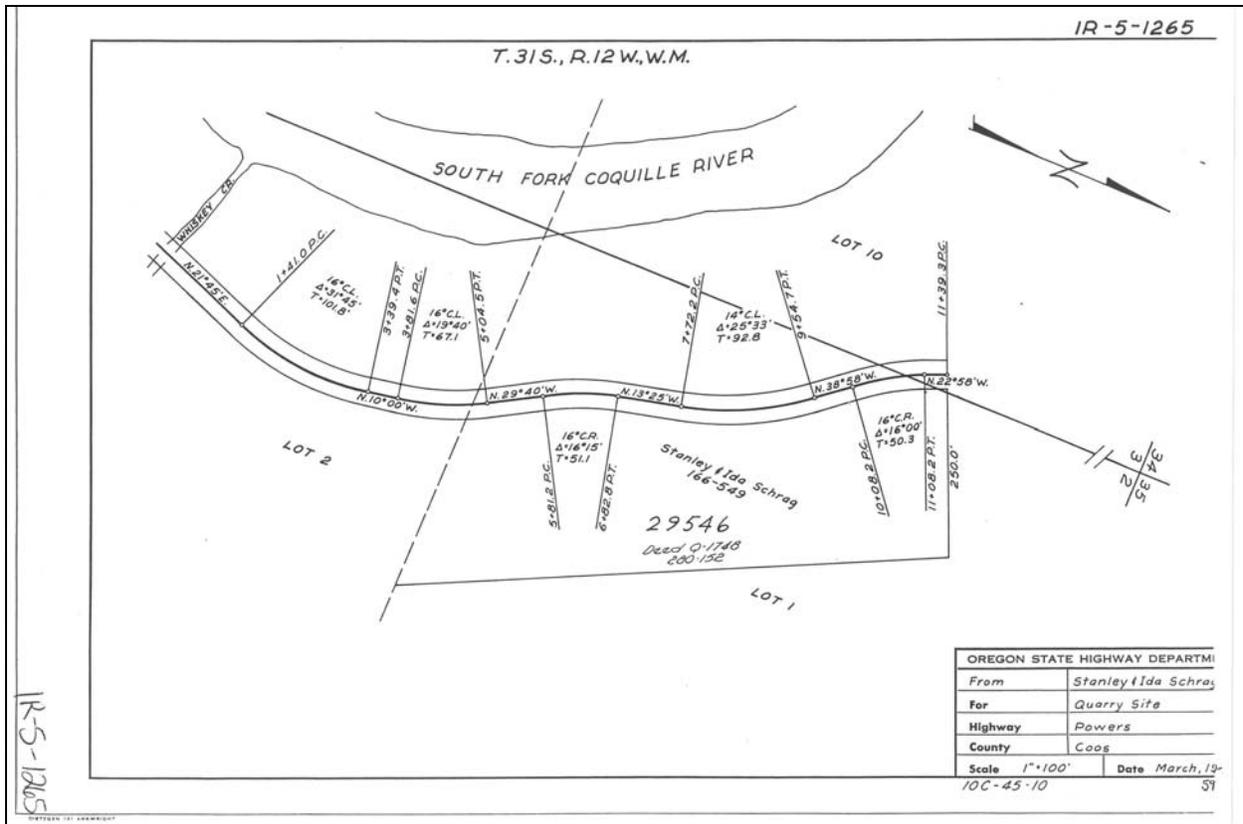


Aerial view of the site when it had been a gravel bar.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Coos	Goat Ranch Pit			07	0242	14.6	31S	12.0W	02
File ID		Source #	Date Visited	Map #			Type of Site		
29546		06-029-3	6/09/1999	1R-5-1265			Quarry		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°55'01.12000"	124°05'59.81000"	88	3.6	NA					
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type	Unit	Color		Weathering			Jointing		
Sandstone	KJds	NA		NA			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Poor			NA	155					
Potentially Significant Site	Why			Open/Closed	Direction				
No	Wrong lithology, site was never developed or opened up to see any subsurface details.			Closed	To the west about 300 meters is the South Fork of the Coquille River.				
Adjacent Land Use									
Forest									
Remarks									
This site is located adjacent to and east of state Highway 242. This site had no visible disturbance. The lithology of the material near the road is a sandstone of poor quality. To the east up the hill is a basalt of marginal quality. It is possible that the basalt was the material used at this location for past aggregate production. The terrain is moderately steep with no room to work and no screening from the road.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									

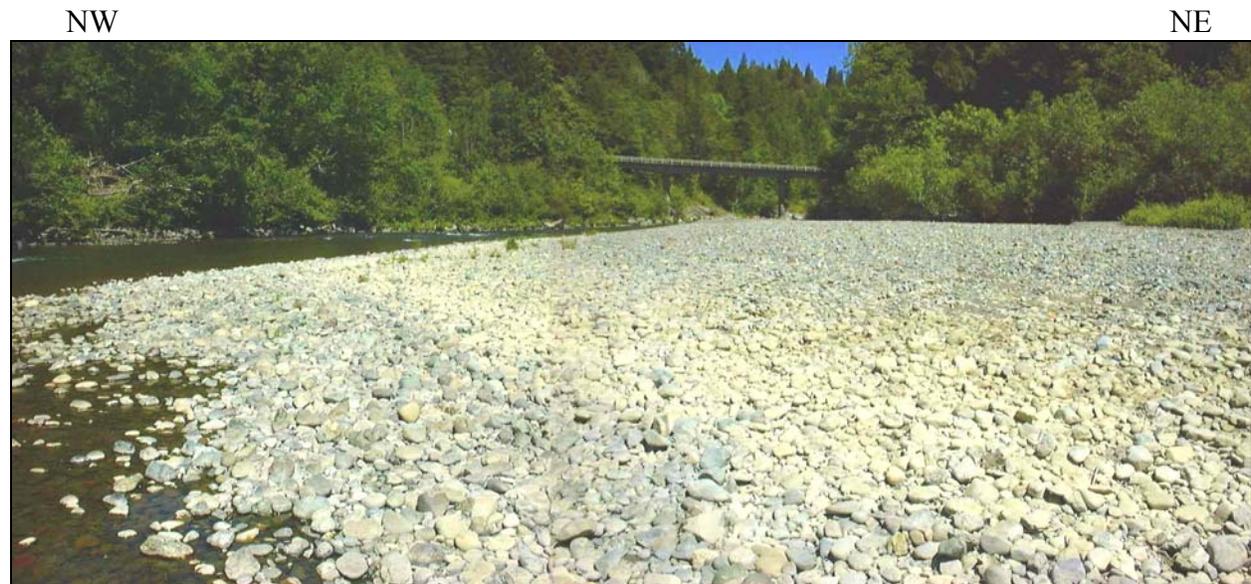


Looking north from the highway at the quarry site.



Aerial view of the site along the Powers Highway.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Coos	Baker Creek Bar				07	0242	15.5	31S	12.0W	03
File ID		Source #	Date Visited	Map #		Type of Site				
09889, 09890		06-030-3	6/09/1999	1R-2-1237		Gravel				
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
42°54'26.88000"	124°06'39.77000"	62	6.77	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type		Unit	Color	Weathering			Jointing			
Igneous/Metamorphic Gravel		NA	NA	Some decomposing gravel.			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)		Reserve (Tons)			
Fair to Good			NA	120	5,000		8,100			
Potentially Significant Site	Why			Open/Closed	Direction					
No	Small acreage, small quantity.			Closed	Adjacent to the South Fork of the Coquille River.					
Adjacent Land Use										
Forest										
Remarks										
This is a small gravel bar adjacent to the South Fork of the Coquille River. It is very narrow and thin with cobble size (~12cm) gravel dominating. There is up to 25% sand at this location. The property is within the flood plane. There are about 500 cubic yards of river gravel up by the highway at our stockpile site. Good site for Salmon mitigation.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
		10.3					17.39	0.9		
Material Use										
BASE & A/C (1972)										



Looking north at the gravel bar along the South Fork of the Coquille River.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Coos	Bullard Quarry / Hull Quarry			07	0009	258.4	28S	14.0W	08
File ID		Source #	Date Visited	Map #		Type of Site			
30419, 30421		06-037-3	6/08/1999	1R-5-1325		Stock Pile			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
43°09'52.30000"	124°23'01.31000"	29	15.55	NA					
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type	Unit	Color		Weathering		Jointing			
Sand	NA	NA		NA		NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
NA			NA	0					
Potentially Significant Site	Why			Open/Closed	Direction				
No	This is a stockpile site.			NA	NA				
Adjacent Land Use									
NA									
Remarks									
The property here is a stockpile site and is used by Maintenance for storage and a bone yard. The lithology at this location is a semi-consolidated sand/sandstone.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									

S



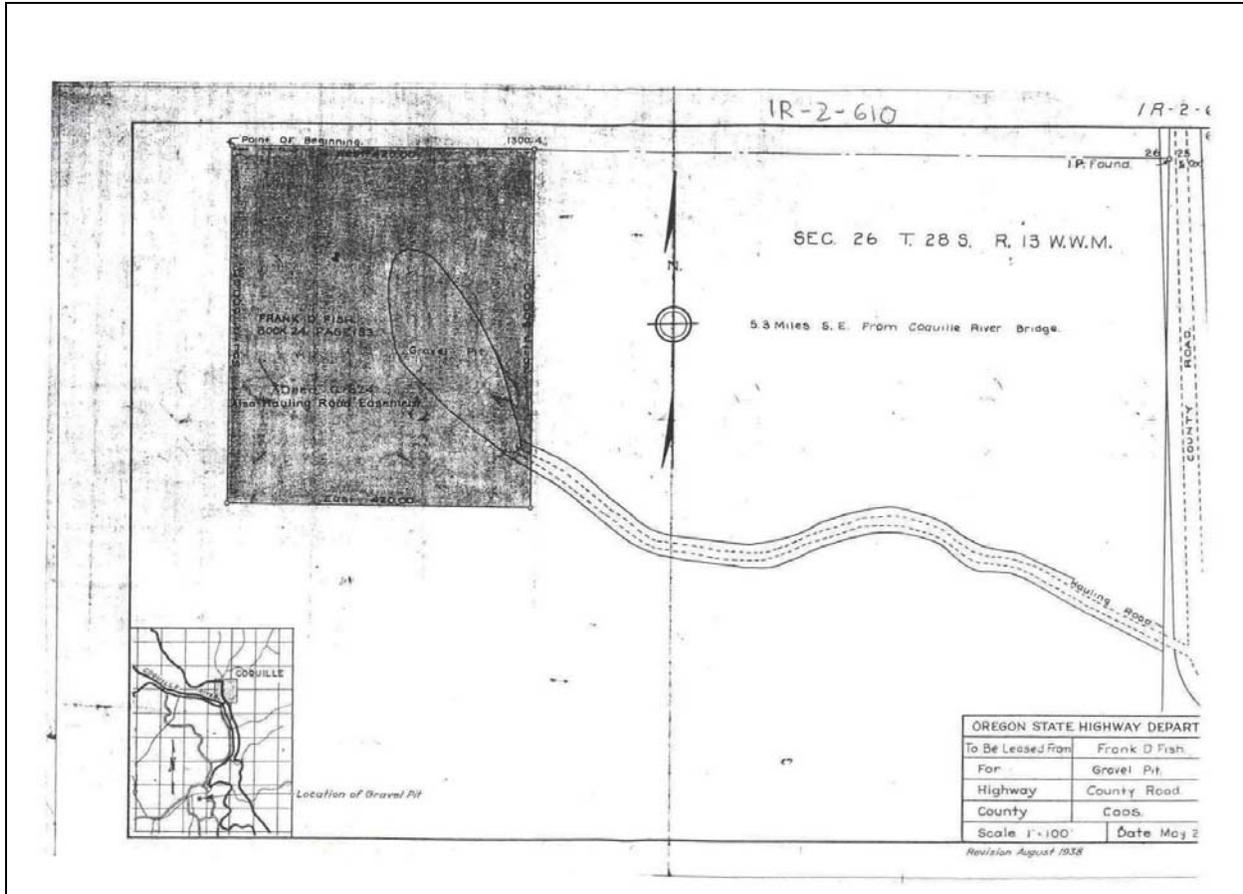
Looking south at the Maintenance stockpile site along Highway 101.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Coos	Fish Gravel Pit				07	0035	10.2	28S	13.0W	26
File ID		Source #	Date Visited	Map #		Type of Site				
06079		06-096-3	6/08/1999	1R-2-610		Borrow				
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
43°06'52.53000"	124°12'17.84000"	66	4.82	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type	Unit	Color	Weathering			Jointing				
Gravel	Qt	NA	NA			NA				
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
NA			NA	120						
Potentially Significant Site	Why			Open/Closed	Direction					
No	Depleted			NA	NA					
Adjacent Land Use										
Farming										
Remarks										
It appears that this site is in use by someone other than ODOT. Property ownership is in question. There is a locked gate and the property is fenced. It appears the site could be depleted of any aggregate.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										

NW



Looking northwest at the borrow pit from the locked gate.



Aerial view of the site and surrounding area.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Curry	Meyers Creek Quarry				07	0009	337.1	38S	14.0W	07
File ID		Source #	Date Visited	Map #		Type of Site				
30385		08-022-3	4/19/2000	1R-5-1324		Quarry				
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
42°18'29.15000"	124°24'40.59000"	27	20	<1 acres	08-0069					
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type	Unit	Color		Weathering		Jointing				
Sandstone	Ks	Dark Greenish Grey (5G 4/1)		Fresh		Massive to Moderately Fractured				
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good to Fair			R3	157	50,000	105,975				
Potentially Significant Site	Why		Open/Closed	Direction						
No	Small quantity of aggregate.		Closed	Meyers Creek bisects the southern portion of the property.						
Adjacent Land Use										
Forest/One residence about 250 meters to the north.										
Remarks										
This site is located on Meyers Creek east of Highway 101 about 500 meters. There is excellent screening from all roads and moderate amount of room to work at this location. You will need to drill and blast at this site to take full advantage of the aggregate at this very steep location. The sandstone lithology here produces some large blocks to use for rip rap. The only other use for the rock would be fill material. Again this is very steep terrain and it will be difficult and dangerous to develop this site to its full potential. There is a locked gate at the access point, but no ODOT sign. There should be a berm between the creek and the pit floor to stop any influx of fines into the water.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										

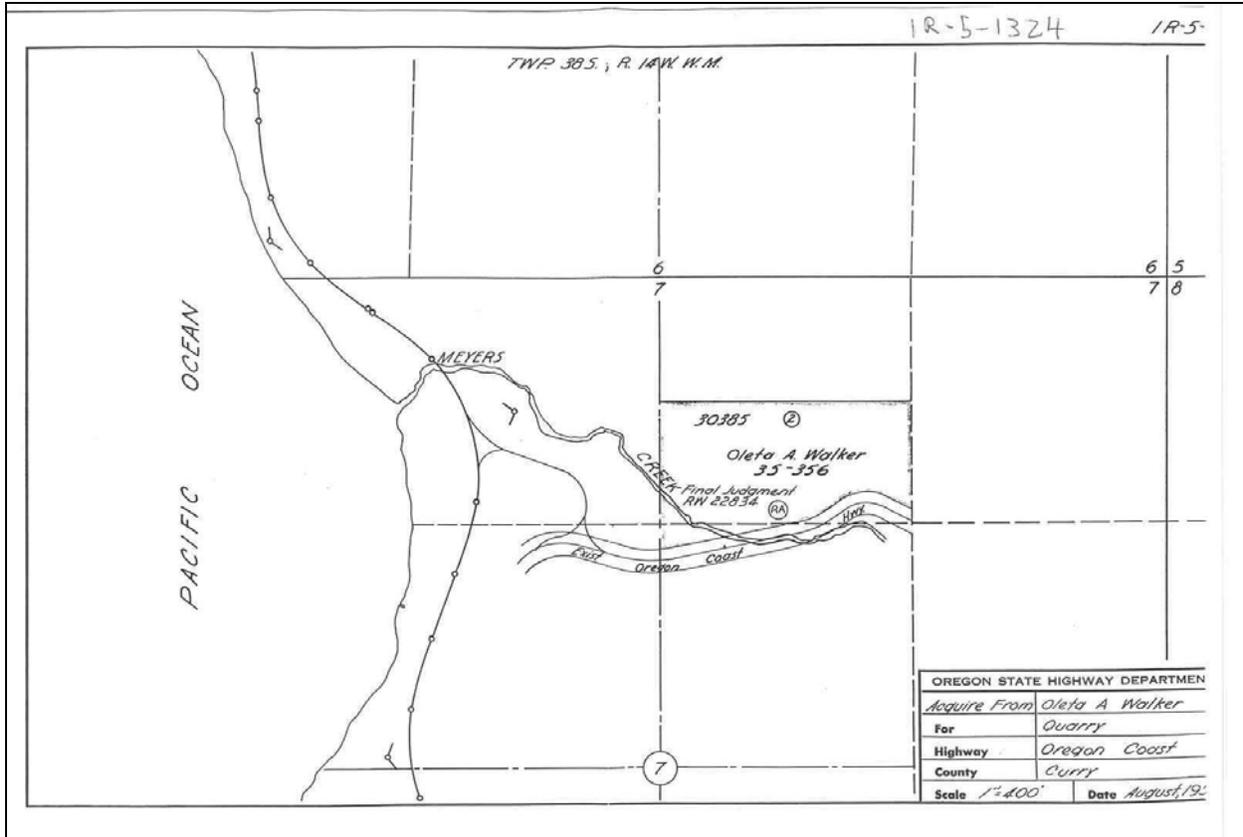
NW

E



Looking north at the quarry site along Meyers Creek. The boulders to the right of the image are riprap size from the pit.

Close-up of the sandstone at the base of the pit with the hammer for scale.



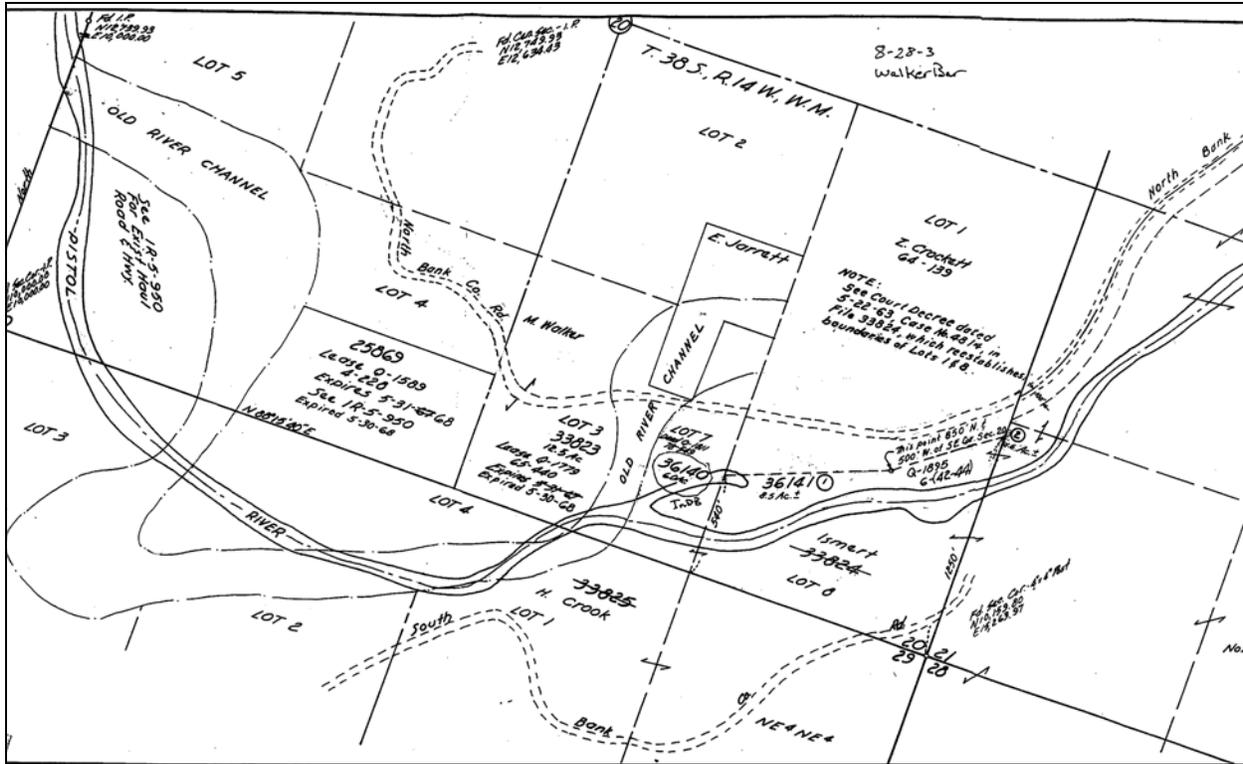
Aerial view of the site in relation to Highway 101 and the Pacific Ocean.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Curry	Walker Bar			07	0009	339.9	38S	14.0W	20
File ID		Source #	Date Visited	Map #			Type of Site		
36140		08-028-3	4/19/2000	1R-3-1315			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°16'04.33960"	124°22'56.16064"	7.419	6	NA					
Comments									
GPS acquired in the pit.									
Rock Type			Unit	Color	Weathering		Jointing		
Metamorphic/Igneous/Sedimentary Gravel			Qal	NA	NA		NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)		Reserve (Tons)		
Fair to Good			NA	120	40,000		64,800		
Potentially Significant Site	Why			Open/Closed	Direction				
No	Too small			Closed	Adjacent to the Pistol River.				
Adjacent Land Use									
Farming									
Remarks									
This site is east of Highway 101 along the Pistol River. Maintenance is using the site for waste material/rock. There is minor screening from the county road and plenty of room to work. The site has no gate and is open to the public for river access. The Oregon Department of Fish and Wildlife has a lease to the site for river access. There is a small gravel bar with about 4,000 cubic yards of material composed of 40% black sands and 60% subrounded rock by volume. Some of the gravel at this site is soft sedimentary rock of little value. The ODFW leases this site for river access. Part of this property has potential for salmon mitigation along the river.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
	2.58	24.7	8.9	24.7	19.7	2.5	16.2	7.6	
Material Use									
(1975)									



Looking to the southwest at the stockpile site adjacent to the County road. The arrow points at the access to the river.

Close-up of the gravel site along the Pistol River.



Aerial view of the stockpile site/gravel bar along the Pistol River.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Curry	Spoerl's Quarry			07	0009	310.9	34S	14.0W	07
File ID		Source #	Date Visited	Map #			Type of Site		
53264		08-048-3	6/08/1999	5B-1-19			Quarry		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°38'33.52994"	124°24'22.6778"	70.84	10.7	<8 acres		08-0062			
Comments									
GPS acquired at access road and Highway 101.									
Rock Type	Unit	Color		Weathering			Jointing		
Metasediment	KJds	Dark Grey (N3)		Fresh			Highly Fractured		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Fair			R2 to R3	168	120,000	272,160			
Potentially Significant Site	Why		Open/Closed		Direction				
No	Quality of the aggregate is in question.		Closed		West across Highway 101 is the Pacific Ocean.				
Adjacent Land Use									
Forest									
Remarks									
This site is along Highway 101 about 3 miles south of Humbug State Park. The quarry is located on east side of the road and a waste site of similar size is located on the west side of the highway. There is little to no overburden here to deal with. There is no screening from the highway and plenty of room to work. The lithology of this Metasediment produces a large quantity of fines and is not the best material for road construction. It would be good for fill material. The fracturing pattern follows the original bedding plane and its conjugate. This helps in ripping the material. There is a lot of calcite as a secondary alteration within the rock. It might be possible to acquire some rip rap out of this site. This property is in an area of unstable ground that is moving and has had a history of mass movement. The Geological Unit that I used is suspect. This site has been in production within the last year. We are using the property on both sides of Highway 101. When I was with the Geometronics unit we worked in this area and installed a benchmark in the quarry.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									

NW

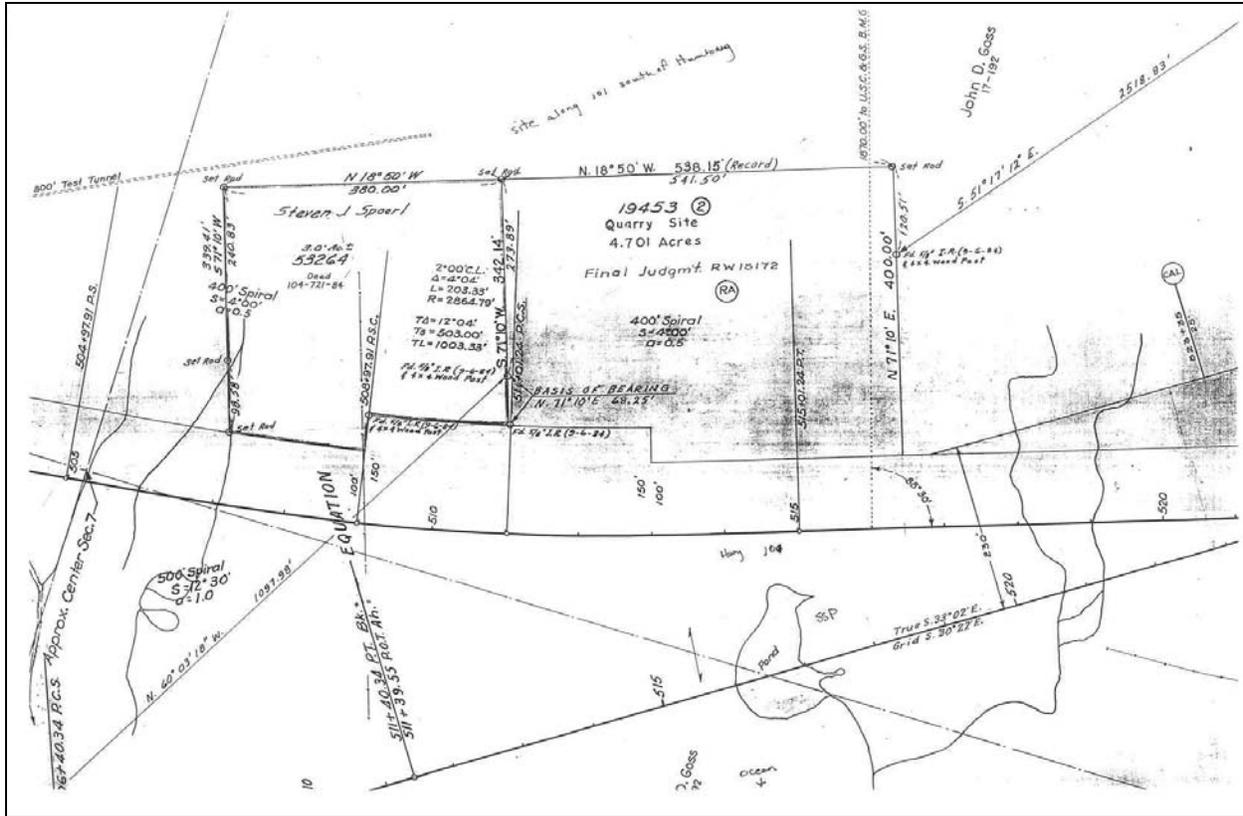
E



Looking northeast at the quarry site along Highway 101.



Close-up of the fracture pattern in the rock.

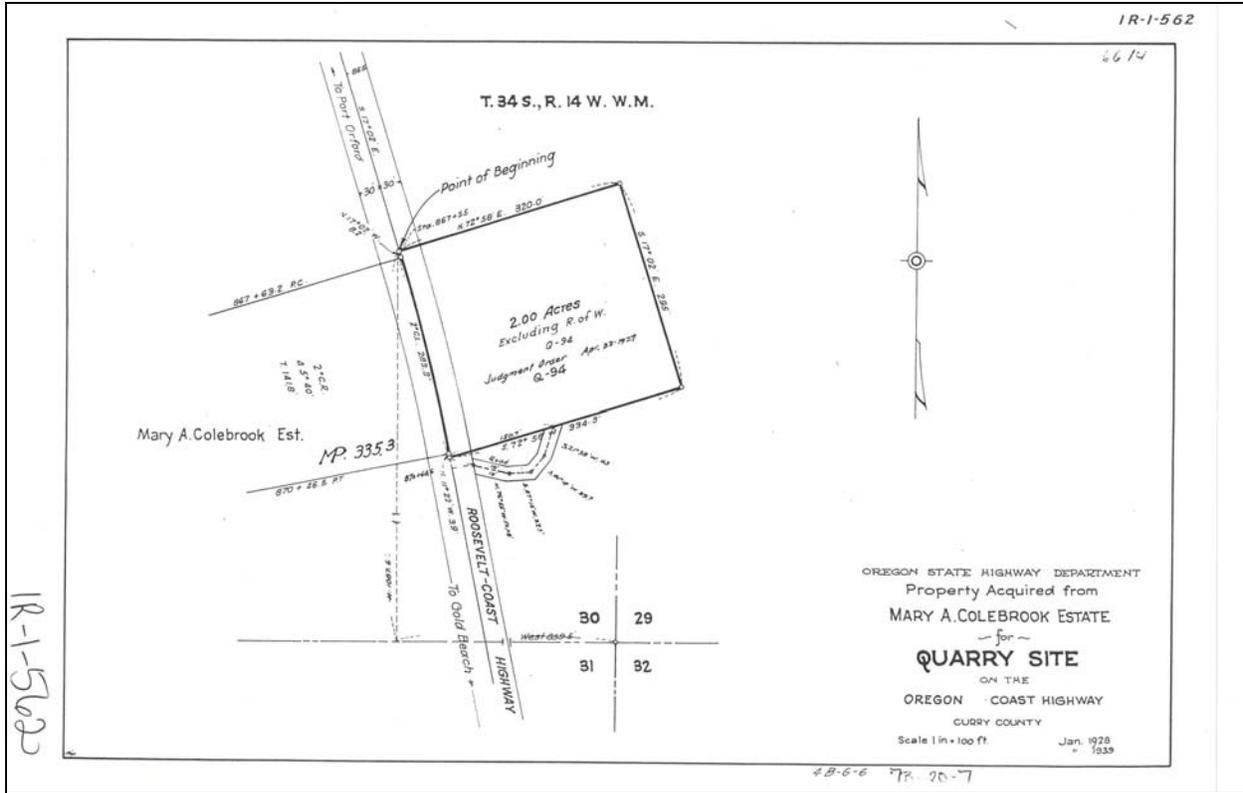


Aerial view of the quarry site along Highway 101.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Curry	Colebrook Quarry/Pedrioli Quarry			07	0009	314.2	34S	14.0W	30
File ID		Source #	Date Visited	Map #		Type of Site			
06614		08-061-3	6/08/1999	1R-1-562		Quarry			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #				
42°35'52.84000"	124°23'54.79000"	73	2	<1 acre					
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type	Unit	Color		Weathering		Jointing			
Metasediment	KJds	Unknown		Unknown		Unknown			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Fair to Poor			Unknown	155	25,000	52,313			
Potentially Significant Site	Why		Open/Closed	Direction					
No	Too small of acreage.		Closed	West across Highway 101 is the Pacific Ocean.					
Adjacent Land Use									
Forest/Farming									
Remarks									
This is a small plot of ground adjacent to Highway 101. Frankport/The Sisters are across the highway from this site. It is in an area of very unstable ground that is still moving today. The site happens to be near a blind curve that limits your visibility for access to this property and would pose a danger. The rock in this area is a poor quality metasediment that produces a lot of fines. The terrain has low relief with no overburden. With such a small piece of ground we might want to think about using it for a stockpile site in the future after the material has been removed. There is a fence that bisects the eastern portion of our ground and should be addressed.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
	2.82			2.4					
Material Use									
RIPRAP (1983)									



General quarry location along Highway 101, north of Frankport.



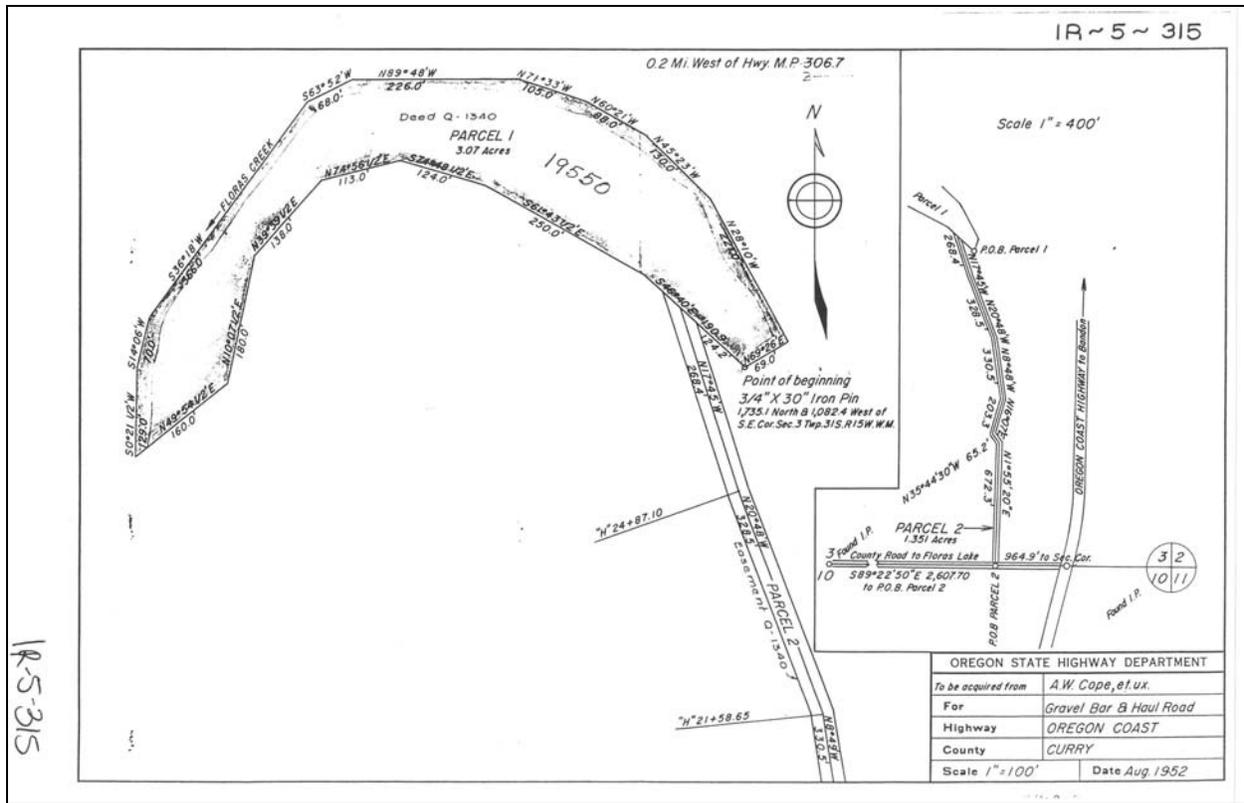
Aerial view of the site along Highway 101.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Curry	Cope Bar/Floras Gravel			07	0009	288.5	31S	15.0W	03
File ID		Source #	Date Visited	Map #			Type of Site		
19550		08-088-3	6/07/1999	1R-5-315			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°54'41.72207"	124°27'26.47676"	26.397	4.33	NA					
Comments									
GPS acquired at easement and County road.									
Rock Type	Unit	Color		Weathering			Jointing		
Metamorphic Gravel	Qal	NA		Fresh to Decomposing			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Good			NA	120	9,000	14,580			
Potentially Significant Site	Why			Open/Closed	Direction				
No	Small acreage, small quantity			Closed	Adjacent to Floras Creek.				
Adjacent Land Use									
Farming adjacent to the property.									
Remarks									
This site is a narrow and shallow gravel bar along Floras Creek just west of Highway 101 about 250 yards. The gravel is composed of a heterogeneous mix of metamorphic lithologies. The dominant size is cobble and less with up to 20% sand by volume. The quality has a range from good to poor based on the lithology. The site is located on the inside of the river radius and in the flood plane. There is good screening but no room to work on site. This site might be good for mitigation, or salmon recovery.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									



Looking west at the gravel bar along Floras Creek

Close-up image of the gravel.



Aerial view of the gravel bar in relation to the highway.
Access to the site is in the bottom right center of the image.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Curry	Hunter Creek Bar				07	0009	330.31	37S	14.0W	07
File ID		Source #	Date Visited	Map #		Type of Site				
20225		08-102-3	6/08/1999	1R-2-1767		Gravel				
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
42 °22'59.62866"	124°24'44.18009"	8.402	7	NA						
Comments										
GPS acquired at the site.										
Rock Type	Unit	Color	Weathering		Jointing					
Metamorphic Gravel	Qal	NA	NA		NA					
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good			NA	120	30,000	48,600				
Potentially Significant Site	Why			Open/Closed	Direction					
No	Small but good quantity of clean gravel.			Closed	Adjacent to Hunter Creek.					
Adjacent Land Use										
Trailer Park/Forest										
Remarks										
This site is located east of Highway 101 about one mile. Access is through a private trailer park. The ground is a narrow and shallow (5ft) gravel bar on Hunter Creek. The gravel here has good quality metamorphic lithologies with up to 20% sand. The dominant size is less than 5 cm with the largest around 30 cm. There is no screening from the adjacent trailer park and there is very limited room to work. Possible mitigation potential.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										

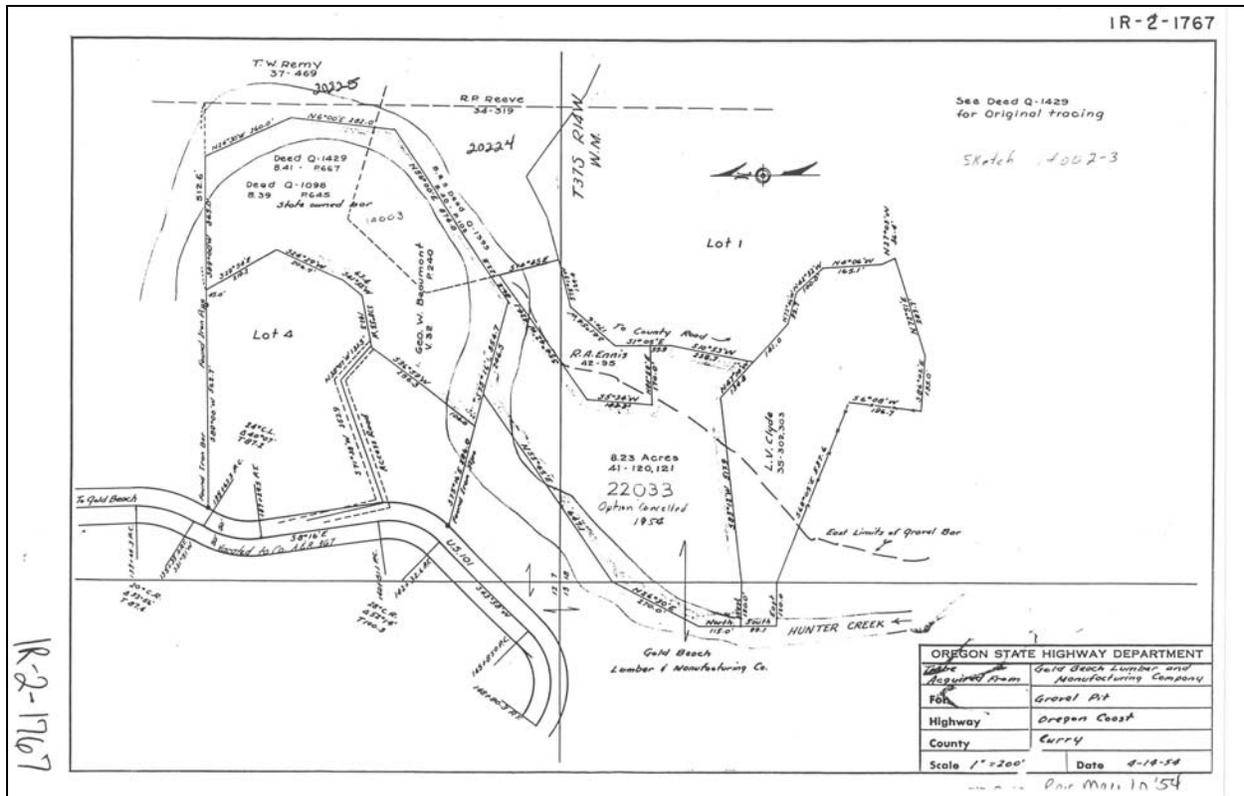
S

NW



Looking west at the gravel bar along Hunter Creek.

Close-up image of the gravel.

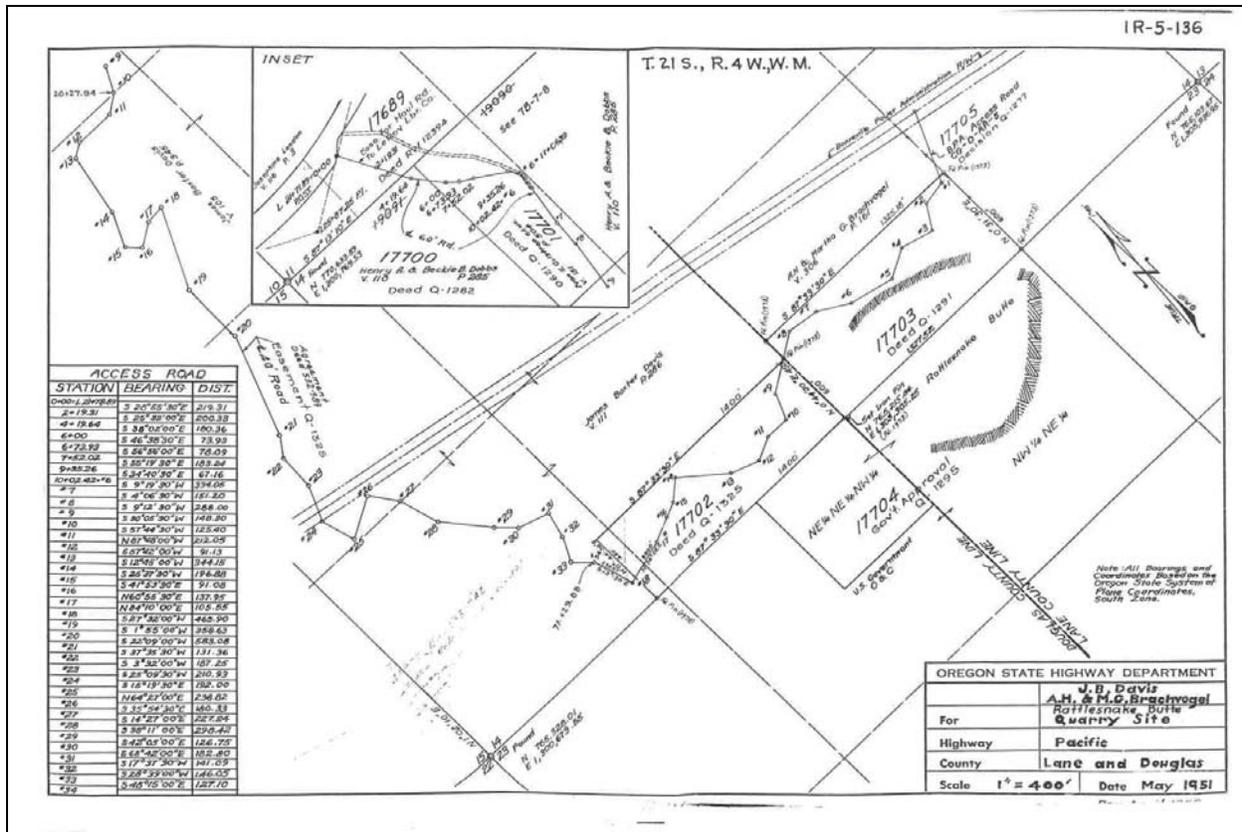


Aerial view of the gravel bar (right side) along Hunter Creek. Note the access through the trailer park (lower arrow) center of the photograph.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Rattlesnake Butte Quarry			07	0001	167.6	21S	04.0W	14
File ID		Source #	Date Visited	Map #			Type of Site		
17689, 17700, 17701, 17702, 17703, 17704, 17705		10-001-3	3/11/1999	1R-5-136			Quarry		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
43°44'11.27427"	123°08'08.98574"	437.305	80	<4 acres		20-0112			
Comments									
GPS acquired at locked gate.									
Rock Type	Unit	Color		Weathering			Jointing		
Basalt	Ti	Dark Grey (N3)		Fresh			Moderate to Highly Fractured		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Very Good			R4	169	1,800,000	4,106,700			
Potentially Significant Site	Why			Open/Closed		Direction			
Yes	Large acreage, good rock, close to I-5, room to work.			Closed		NA			
Adjacent Land Use									
Forest									
Remarks									
This site borders on the Douglas/Lane County line. You access this quarry from Interstate 5 southbound in Douglas County and the quarry sits in Lane County. The rock here is a fine-grain basalt with little weathering. There is very good screening with plenty of room to work here. You can rip the rock but most likely you would need to drill and blast. The geological literature states that this igneous body is possibly rootless, meaning that there is no bottom to this intrusion. I believe from field examinations that this is a hypabyssal intrusion that is not rootless and that it sits atop the marine unit that is exposed at the locked gate. The terrain here is moderately steep and over grown with common coast range vegetation. This site and Iron Mountain in Lincoln County should be models on site development and types of properties to look to purchase in the future. Maintenance has a large volume of rock stockpiled. There is a steep paved road to access this site. There is a locked gate at this site.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
2.722	2.758	19.8	5.0	2.0	3.2	.3	2.6	.2	
Material Use									
Quarry Rock (1997)									



Looking west into the pit.
The pit run material is pushed down a natural chute, far right side of the image.

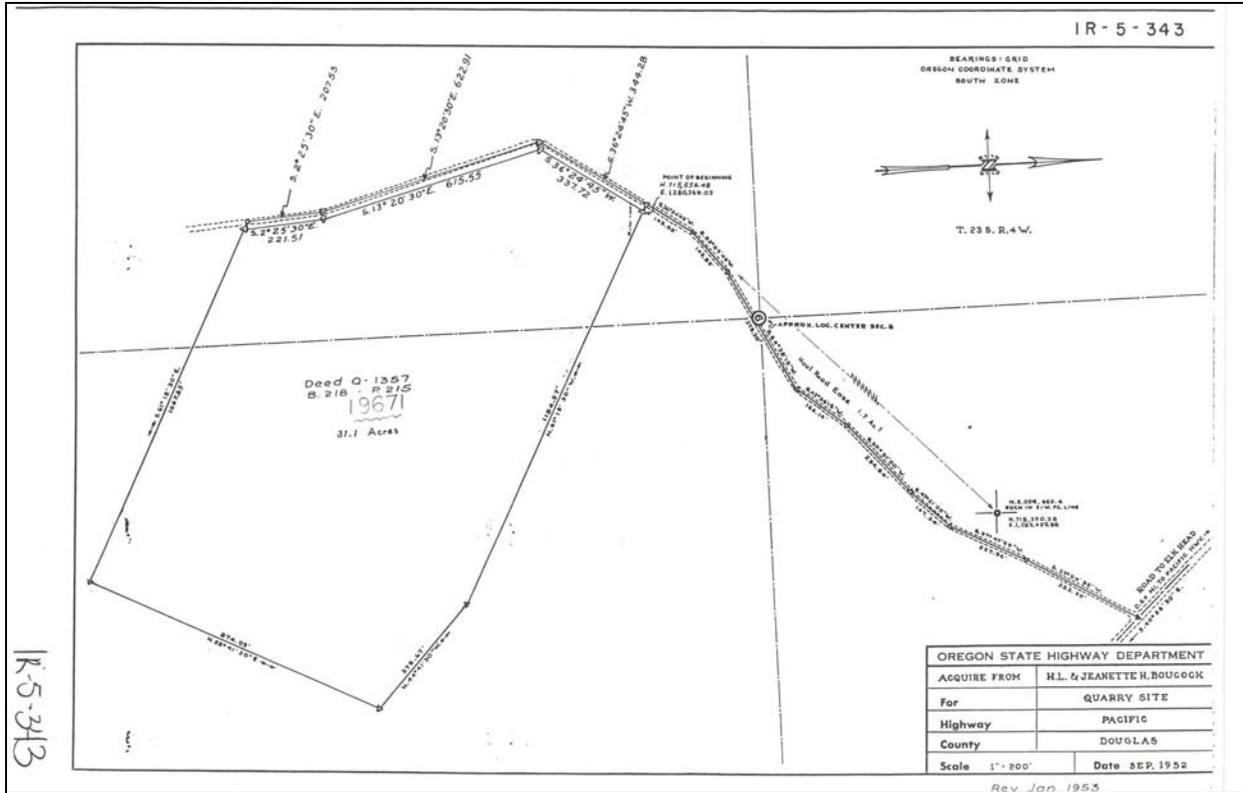


Close-up of the jointing pattern on the pit face.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Boucock Quarry				07	0001	154.5	23S	04.0W	06
File ID		Source #	Date Visited	Map #		Type of Site				
19671		10-005-3	6/18/1999	1R-5-343		Quarry				
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
43°35'45.62204"	123°12'57.8765"	194.67	31.1	<2 acres						
Comments										
GPS acquired in the pit										
Rock Type	Unit	Color		Weathering		Jointing				
Basalt	Tsr	Light Olive Grey (5Y 5/2)		Slight to Moderate		Moderate Fracture to Very Massive				
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Fair to Good			R2 to R3	164	600,000	1,328,400				
Potentially Significant Site	Why			Open/Closed	Direction					
Maybe	Large acreage, close to I-5, good screening with room to work at this site.			Closed	To the west approximately 300 meters is Adams Creek.					
Adjacent Land Use										
Forest/Ranch/Farming										
Remarks										
This site is located south of Elkhead County Road about 1/2 of a mile. The rock is a medium to fine-grain amygdaloidal basalt. The amygdules are filled with secondary alteration of zeolites. This basalt can be soft and very blocky. It might be good for rip rap material and should be evaluated for that. You might be able to rip some of the rock but most likely you would need to drill and blast. There is plenty of room to work with great screening from all roads. The easement is over some open range land with livestock around the quarry area. The access point has a locked chain. The eastern most pit wall could be at our property boundary and should be checked. It might be advisable to put some form of survey control to help with future development plans. There is good screening from the county road, and surrounding area. Approximately 55,000 cubic yards have been removed to date. This site is used as a waste site now. We would need a survey to determine the extent of the disturbance. Overburden and weathered zone are up to 10 feet thick in places. Minor reclamation work has gone on here at this site.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
		31.04					29.8	6.3		
Material Use										
CLASS "B" A/C (1972)										



Looking east at the pit floor and the pit wall.



Close-up of the pit wall with the hammer for scale.
Note the very large fracture pattern at this site.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Cranfill Gravel Bar				07	0001	132.3	26S	06.0W	05
File ID		Source #	Date Visited	Map #			Type of Site			
18999, 19000		10-020-3	6/21/1999	1R-5-254, 1R-5-253			Gravel			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
43°19'51.72000"	123°26'25.69000"	118	36.43	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type		Unit	Color	Weathering			Jointing			
Volcanic/Metamorphic Gravel		Tt	NA	NA			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good to Fair			NA	120	160,000	259,200				
Potentially Significant Site	Why			Open/Closed	Direction					
Maybe	Large acreage away from the river with plenty of room to work.			Closed	Adjacent to the Umpqua River.					
Adjacent Land Use										
Farming/Forest										
Remarks										
I had no access to this site from the east side of the river. I evaluated it from the west side off of Garden Valley Road. The original easement went through the Umpqua River to the property. This site has limited gravel exposed at the surface. It appears there is a high percentage of sand mixed in with the gravel. The dominant size gravel is boulder or less. The sandstone/mudstone unit at this site is very close to the surface, with a small layer of gravel covering it. This site is located on the inside of the river radius. There is no screening from the road but plenty of room to work here. This site is a long distance from any of our roads. The easement is from Garden Valley Road, and crosses through the Umpqua River. A new easement would need to be developed on the east side of the river for access.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C		208 C Ht.	
	2.63	37.80	29.3	19.47	25.3	1.7				
Material Use										
Base and AC (1973)										

S

NW



Looking southwest across the Umpqua River to the gravel site

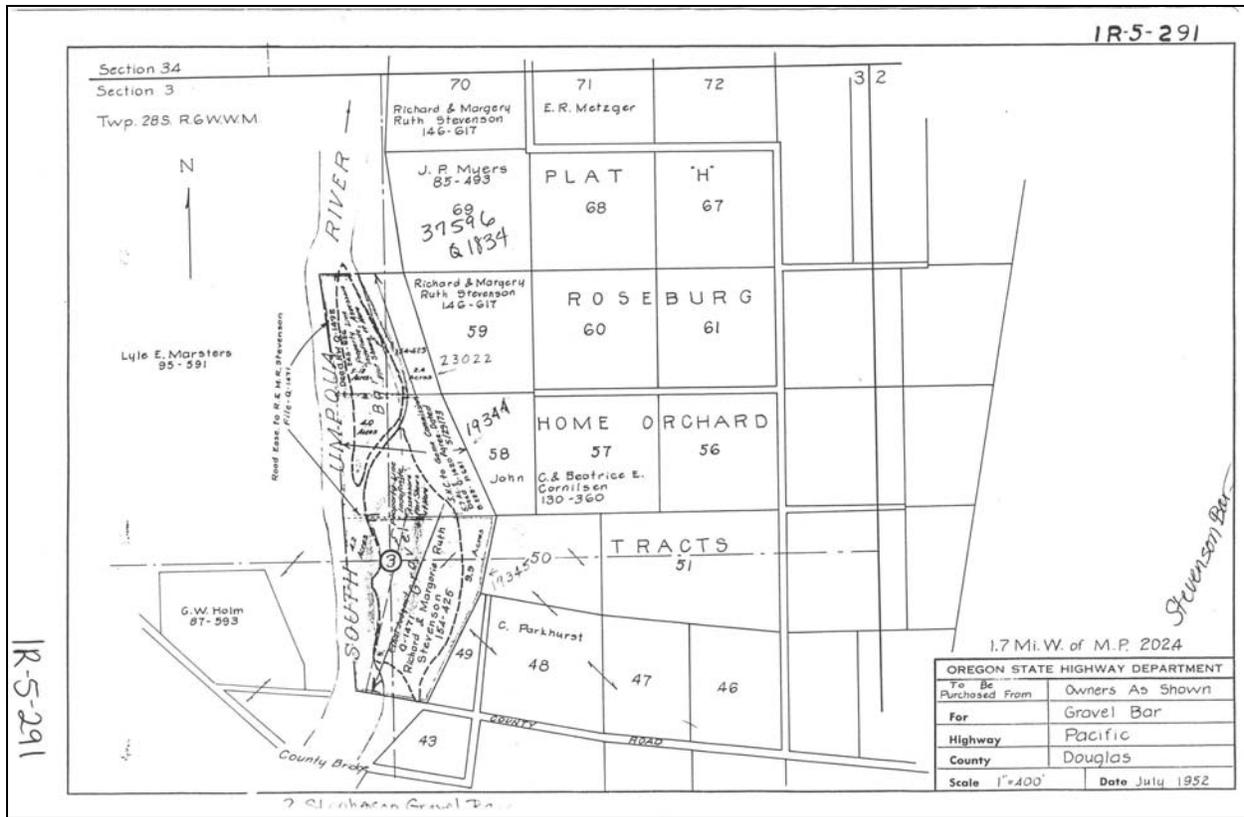


Close-up of the gravel along the Umpqua River at this location.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Stevenson Bar				07	0001	120.2	28S	06.0W	03
File ID		Source #	Date Visited	Map #		Type of Site				
19344, 19345, 23022		10-024-3	6/21/1999	1R-5-291		Gravel				
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
43°09'43.29000"	123°23'39.24000"	144	26.63	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type		Unit	Color	Weathering			Jointing			
Volcanic/Metamorphic Gravel		Qal	NA	NA			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good			NA	120	70,000	113,400				
Potentially Significant Site	Why			Open/Closed	Direction					
No	This property has been leased and now has a small park on the east side of the river.			Closed	South Umpqua River bisects property.					
Adjacent Land Use										
Residential/Farming										
Remarks										
This property has been leased to the Oregon Department of Fish and Wildlife. This site has wetland mitigation potential.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
2.62			4.0				9.3	0.7		
Material Use										
AC (1986)										



Looking northwest across the South Umpqua River to the gravel bar in the background.

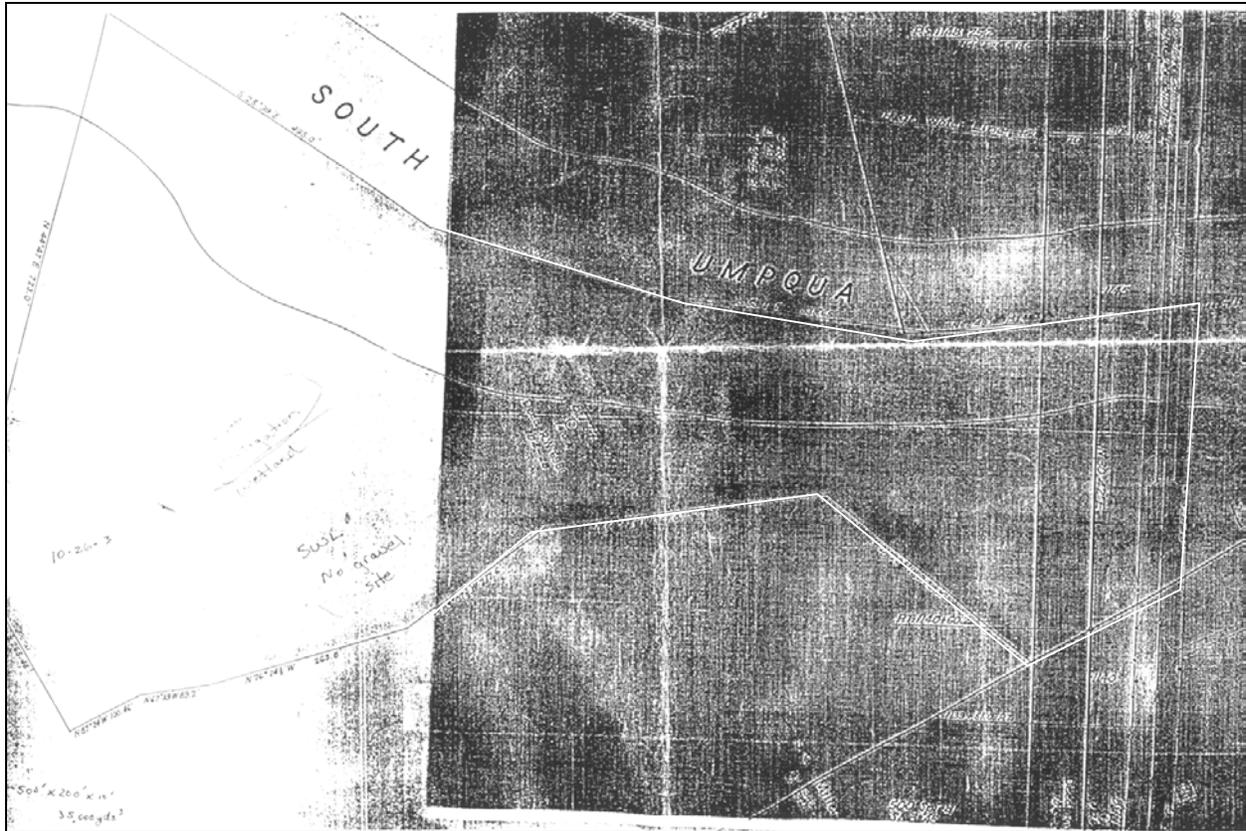


Aerial view of the site in relation to the surrounding area.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Fisher Bar				07	0035	0	28S	06.0W	21
File ID		Source #	Date Visited		Map #			Type of Site		
08777		10-026-3	4/18/2000		5B-30-16			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #				
43°06'46.74000"	123°25'02.38000"	154	17.36	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type		Unit	Color	Weathering			Jointing			
Volcanic/Metamorphic Gravel		Qal	NA	NA			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Fair to Good			NA	120	35,000	56,700				
Potentially Significant Site	Why			Open/Closed	Direction					
No	Salmon mitigation site.			Closed	Adjacent to the South Umpqua River.					
Adjacent Land Use										
Farming/Rural Residential										
Remarks										
This site is located northwest of the bridge along the South Umpqua River and Highway 99. The property is in and adjacent to the river. The site is all natural with no visible disturbance. This property has been used as a Salmon mitigation site.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										



Looking west at the gravel site along the side of the South Umpqua River.

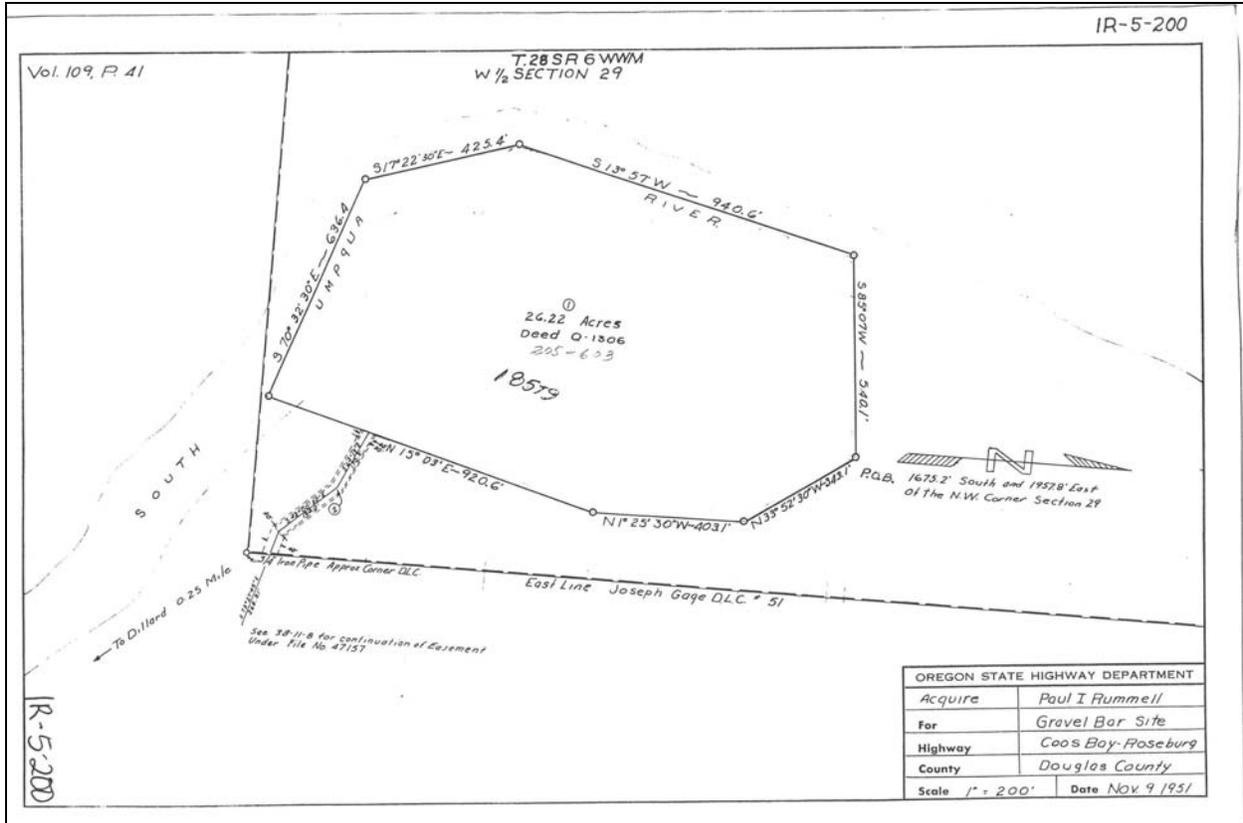


Aerial view of the gravel site along the South Umpqua River.

County	Site Name				Dist	Hwy	Mile Pt	TWP	Sect
Douglas	Rummel Bar				07	0035	0	28S	06.0W 29
File ID		Source #	Date Visited	Map #		Type of Site			
18579		10-027-3	6/17/1999	1R-5-200		Gravel			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #				
43°06'15.46595"	123°26'09.79631"	161.678	26.47	NA					
Comments									
GPS acquired at the access point down to the gravel bar, behind the closed lumber yard.									
Rock Type		Unit	Color	Weathering			Jointing		
Volcanic/Metamorphic Gravel		Qal	NA	NA			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Good			NA	120	65,000	105,300			
Potentially Significant Site	Why			Open/Closed	Direction				
No	Limited quantity of gravel.			Closed	South Umpqua River bisects property.				
Adjacent Land Use									
Commercial Property, in the city limits of Dillard.									
Remarks									
This site is located adjacent to and west of Dillard. The South Umpqua River bisects this site. The size of the gravel here is less than or equal to 15 cm with up to 50% sand. There is a greater percentage of gravel on the east side of the river compared to sand. Both sides are within the high water mark of the river. This location is open to all and it is becoming a dumping ground. There is no gate or fence at this site. This site was on State Highway 235, which does not exist anymore. I grouped it within State Highway 35.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
2.59			1.4				8.6	0.7	
Material Use									
AC (1991)									



Looking northwest down to the gravel bar that is adjacent to the South Umpqua River.

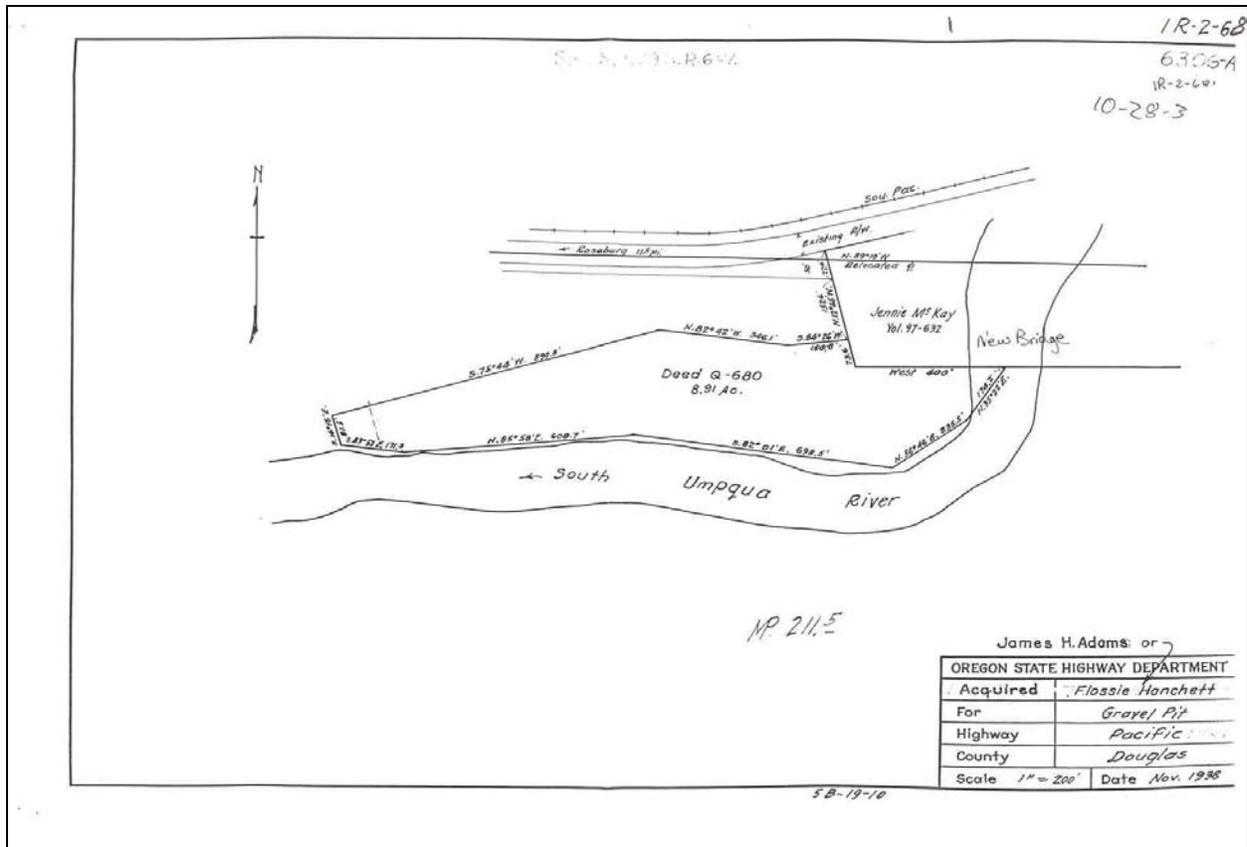


Aerial view of the gravel bar adjacent to the South Umpqua River, in the town of Dillard.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Hanchett Bar				07	0035	0	29S	06.0W	03
File ID		Source #	Date Visited		Map #			Type of Site		
6306-A		10-028-3	4/18/2000		1R-2-681			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
43°04'47.43000"	123°23'18.99000"	183	8.91	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type		Unit	Color	Weathering			Jointing			
Igneous/Metamorphic Gravel		Qal	NA	NA			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good			NA	120						
Potentially Significant Site	Why			Open/Closed	Direction					
No	Potential Salmon mitigation site.			Closed	Adjacent to the South Umpqua River.					
Adjacent Land Use										
Rural/Residential										
Remarks										
This site is south of Dillard. It is a long narrow piece of property between the County Road and the South Umpqua River. There is not much depth to the gravel here. Bedrock could be close to the surface. This property has mitigation potential. There was a new bridge over the river being constructed at the time of the site visit. This site was on State Highway 235, which does not exist anymore. I grouped it within State Highway 35.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
		16.3	5.9	3.5			16.3	1.3		
Material Use										
PIT GRAVEL (1983)										



View from the access point down to the gravel bar on the South Umpqua River. The bridge over the river (far left) was being replaced at the time of the visit.



Aerial view of the gravel site along the South Umpqua River.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Weigel Bar/Bounds Pit			07	0001	113.6	29S	06.0W	02
File ID		Source #	Date Visited	Map #			Type of Site		
18839, 14979, 24581, 24582, 51981, 18579, 24580, 24584, 24583		10-030-3	6/16/1999	1R-2-1844, 1R-2-1844			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
43°04'10.82709"	123°22'0"7.55016"	175.91	27.99	NA					
Comments									
GPS acquired at access point and Weigel Road.									
Rock Type		Unit	Color	Weathering			Jointing		
Volcanic/Metamorphic Gravel		Qal	NA	NA			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Good			NA	120	145,000	234,900			
Potentially Significant Site	Why			Open/Closed	Direction				
No	Limited quantity of gravel mixed in with the sand.			Closed	Adjacent to and in the South Umpqua River.				
Adjacent Land Use									
Farming/Minor Residential adjacent.									
Remarks									
This site is located at the end of Weigel Lane. The ground is adjacent to and in the South Umpqua River. The gravel bar is composed of cobble size and less with up to 20% sand mixed in. The stockpile site is located on a bench 6 feet above the river. All of the ground is covered in vegetation. Above the river the material is composed of sand (50%) and gravel (50%) by volume. The gravel bar in the river is very thin and is probably out of bounds for production. There is no gate to this site and is open to the public. The quantity is based on 15 acres of disturbance to a depth of 6 feet.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
2.62	2.71	15.0	3.9	3.8			14.2	0.7	
Material Use									
GRAVEL BAR (1979)									

SW

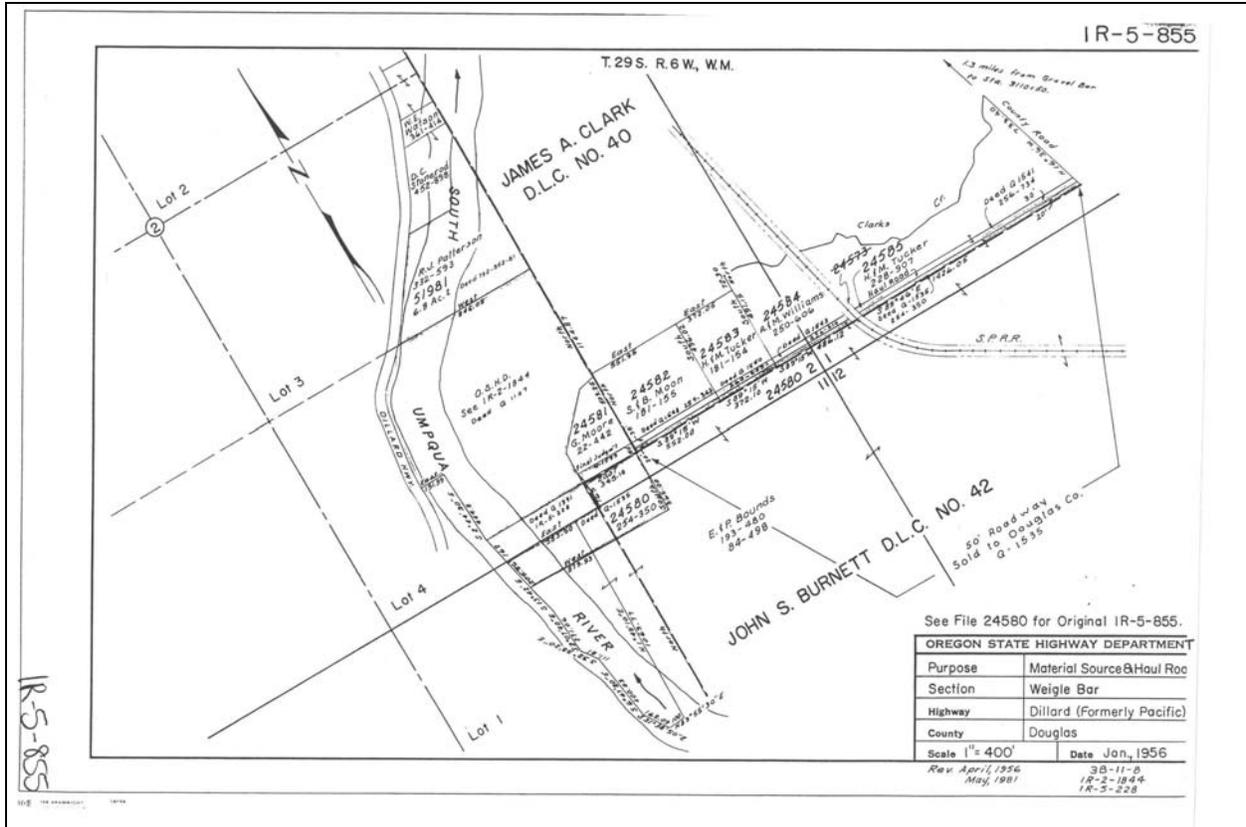
W



Looking west at the stockpile site at the end of Weigel Lane.



Close-up of the gravel bar along the South Umpqua River.

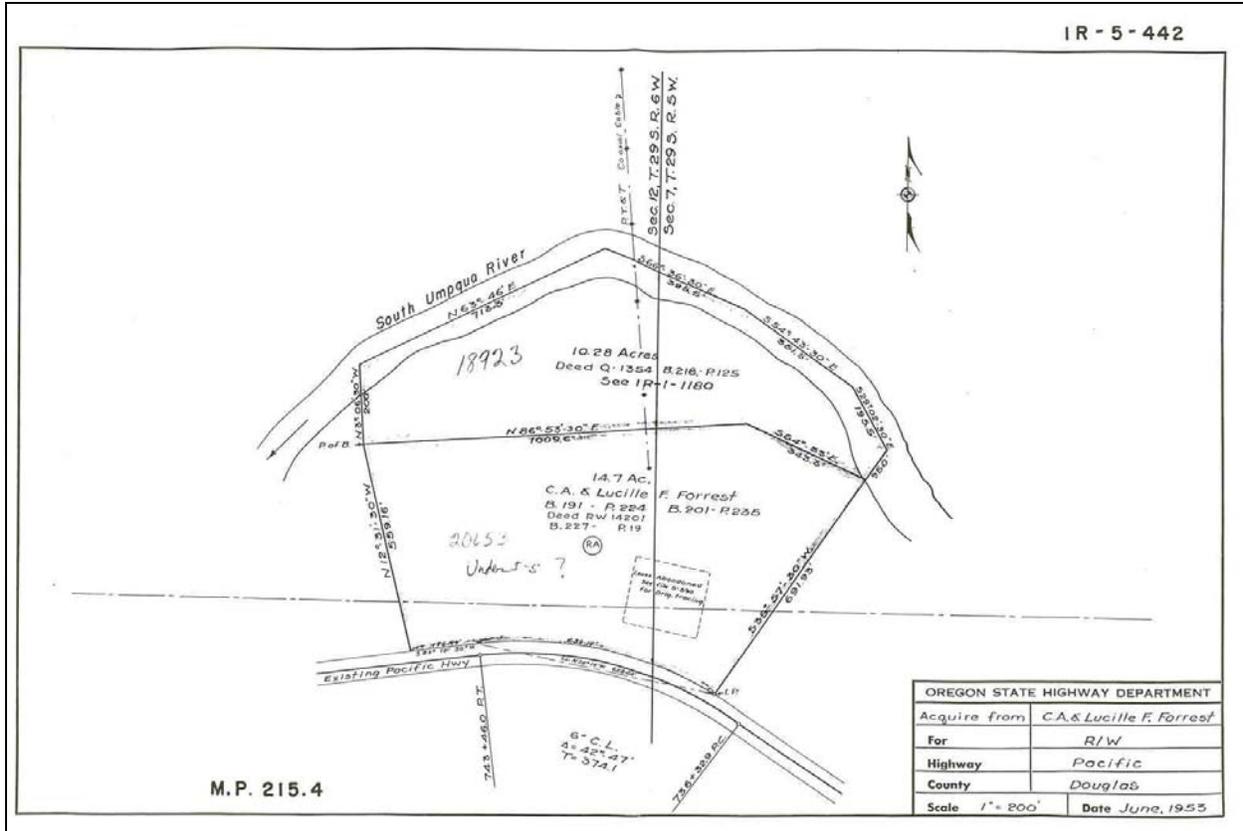


Aerial view of the gravel bar along the river.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Forrest Bar				07	0001	112.5	29S	06.0W	12
File ID		Source #	Date Visited	Map #			Type of Site			
18923		10-031-3	6/17/1999	1R-1-1180,1R-5-442			Gravel			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
43°03'51.24000"	123°20'43.97000"	183	10.28	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type		Unit	Color	Weathering			Jointing			
Volcanic/Metamorphic Gravel		Qal	NA	NA			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good			NA	120	48,000	77,760				
Potentially Significant Site	Why			Open/Closed	Direction					
No	Small ground, limited access to the site.			Closed	Adjacent to the South Umpqua River.					
Adjacent Land Use										
I-5 Rest Area, Residential property adjacent south.										
Remarks										
This site has been bisected by the County Road, I-5 rest area, and possibly the new I-5 alignment over the South Umpqua River. The quantity is a maximum for this site. Most likely this site is too narrow for aggregate removal. There is no room to work, and no screening at this location. There is an adjoining piece of property that totals 14.7 acres that most likely is the I-5 rest area now.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										



Looking west across the South Umpqua River at the gravel site.

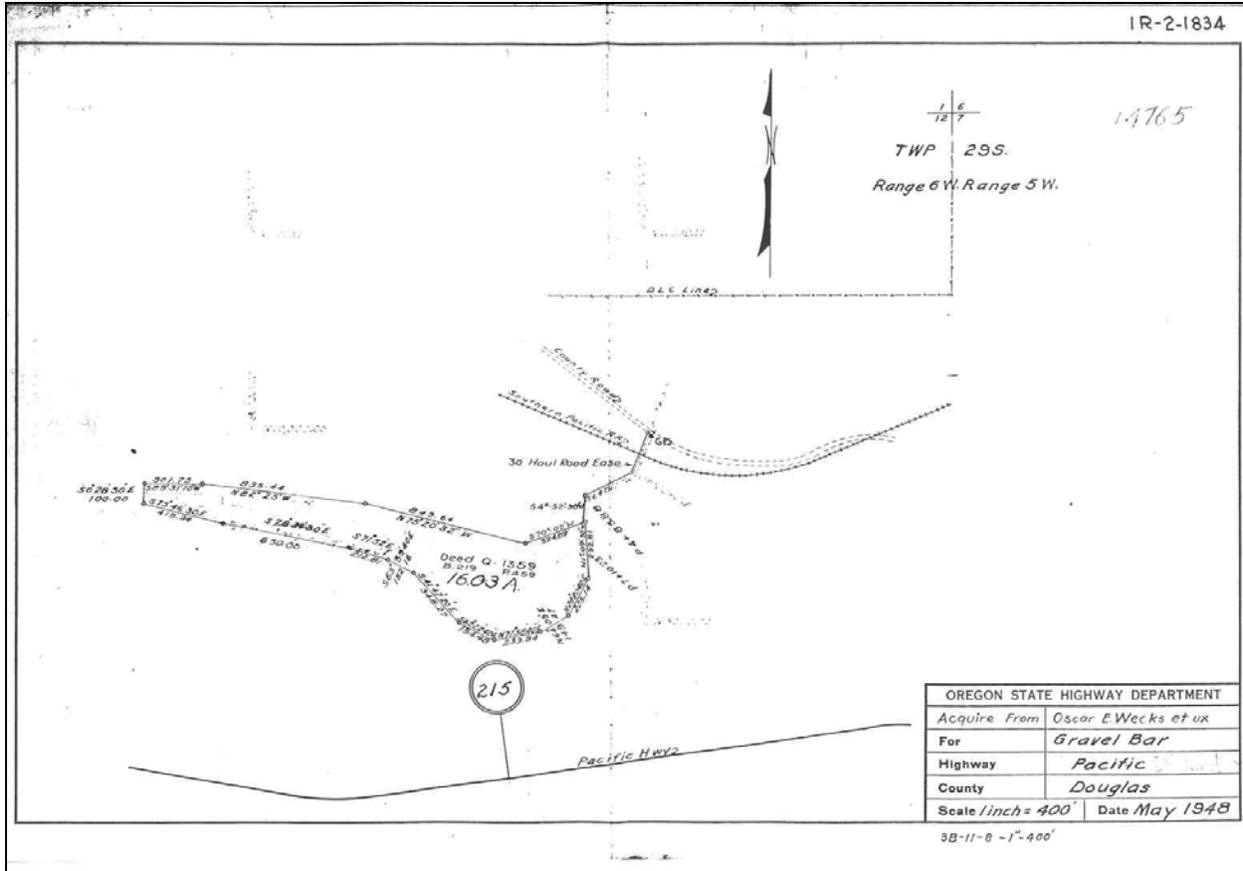


Aerial view of the gravel bar in relation to I-5.
Note the rest area right of center.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Weeks Bar				07	0001	113.4	29S	06.0W	12
File ID		Source #	Date Visited	Map #			Type of Site			
14765		10-033-3	6/16/1999	1R-2-1834			Gravel			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
43°03'54.3323"	123°21'04.56355"	181.143	15.5	NA						
Comments										
GPS acquired at access point										
Rock Type	Unit	Color		Weathering			Jointing			
Volcanic Gravel	Qal	NA		NA			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good			NA	120	30,000	48,600				
Potentially Significant Site	Why			Open/Closed	Direction					
No	Small quantity, narrow property, no room to work.			Closed	Adjacent to the South Umpqua River.					
Adjacent Land Use										
Farming										
Remarks										
This site is situated about 400 meters west of I-5 on the north bank of the South Umpqua River. The material here is composed of well-rounded to subangular cobble to small boulder size gravel. There is up to 30% sand and 70% gravel by volume. The depth of gravel is shallow along this narrow site. There is no room to work and limited screening at this site. Access is over a rail line and through private farmland.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
	2.65	20.48	4.73	4.61	16.6	1.2				
Material Use										
AC and Shoulder Material (1974)										



Looking east at the gravel bar along the South Umpqua River.
The arrow points to the Suburban at the access point.

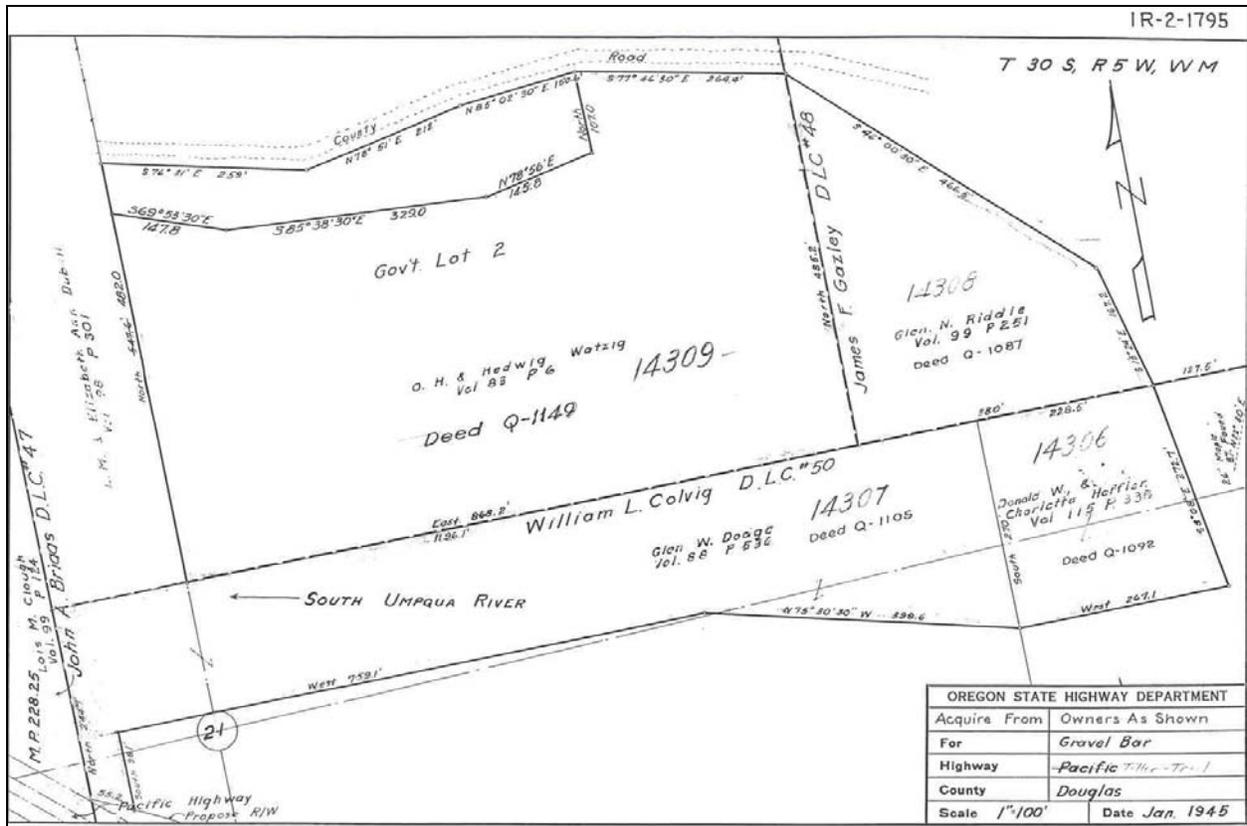


Aerial view of the gravel bar along the river.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Stanton Park Bar				07	0001	100.3	30S	05.0W	21
File ID		Source #	Date Visited	Map #		Type of Site				
14309, 14308, 14307, 14306.		10-035-3	6/15/1999	1R-2-1795		Gravel				
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
42°56'53.59000"	123°17'33.40000"	243	18.14	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type		Unit	Color	Weathering			Jointing			
Igneous/Metamorphic Gravel		Qal	NA	NA			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good			NA	120	145,000	234,900				
Potentially Significant Site	Why			Open/Closed	Direction					
No	In the river.			Closed	In the middle of the South Umpqua River.					
Adjacent Land Use										
Farming/County Park (Stanton Park)/Residences adjacent north and south.										
Remarks										
This site is located about 250 meters north of I-5. The material is a clean source of large cobble size and less gravel. Most of the ground is surrounded by the South Umpqua River. The access would be difficult because this site is near the County Park. A new access or easement would need to be developed to this site. Possible wetland/salmon recovery site.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										



Looking south across the South Umpqua River to the island gravel bar.

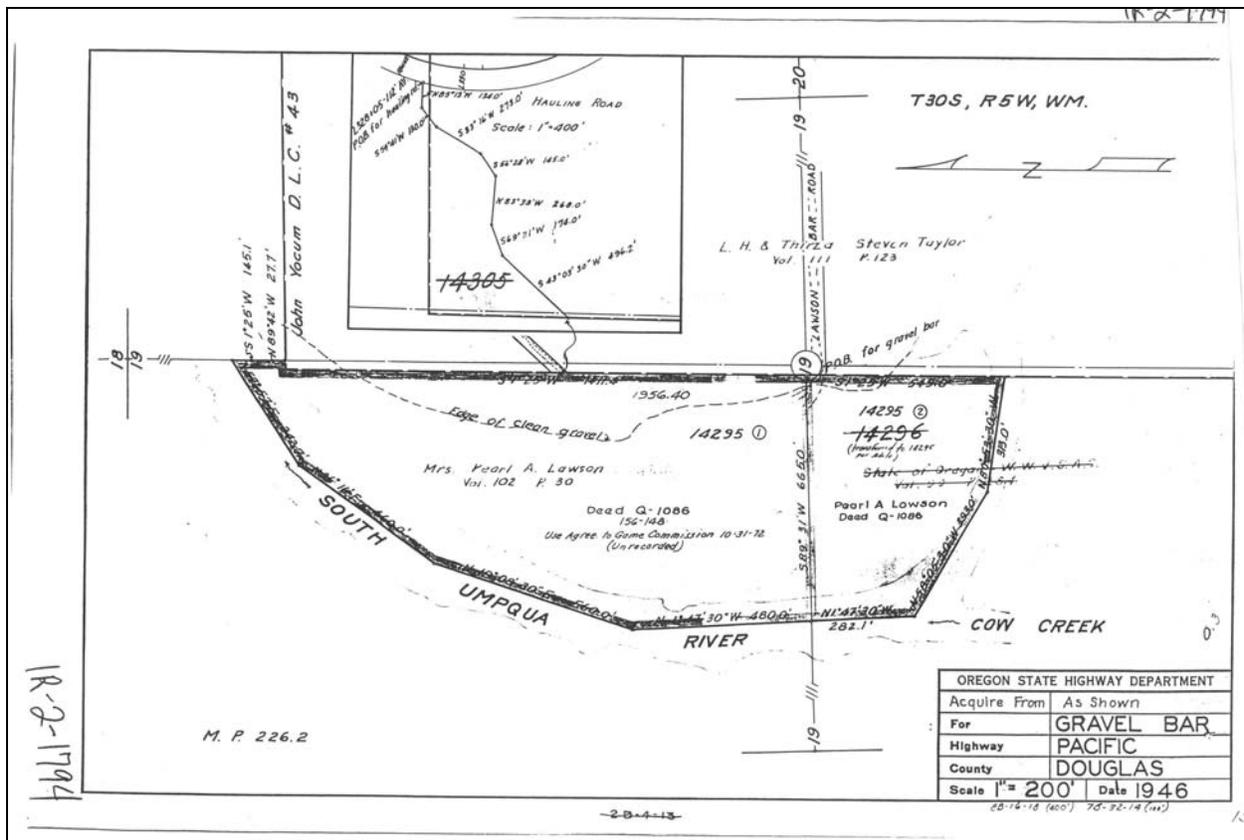


Aerial view of the gravel bar in the river in relation to I-5 and Canyonville.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Lawson Bar			07	0001	102	30S	05.0W	19
File ID		Source #	Date Visited	Map #			Type of Site		
14295		10-036-3	6/16/1999	1R-2-1794			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°56'53.44263"	123°20'08.01326"	195.096	25.44	NA					
Comments									
GPS acquired at the end of Lawson Bar Road and the access point.									
Rock Type		Unit	Color	Weathering			Jointing		
Metamorphic/Igneous Gravel		Qal	NA	NA			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Good			NA	120	100,000	162,000			
Potentially Significant Site	Why			Open/Closed	Direction				
Maybe	This site has good quality and fair quantity, and it is close to I-5			Closed	Adjacent to the South Umpqua River.				
Adjacent Land Use									
Residences about 350 meters away.									
Remarks									
This site is located at the end of Lawson Bar Road. The gravel here is a heterogeneous mix of lithologies that range from volcanic and plutonic to metamorphic. The gravel ranges in size from boulder down to sand size with the dominant size as cobble. There can be up to 20% sand next to the river and up to 60% sand further away from the river. The bedrock is at the surface here so the depth of gravel is variable and thin. Most of the ground is within the flood plane. This site is open for public access to the river. The quantity calculation is based on a 20 acre site 3 feet deep. The ODFW has an agreement for public access to the river through this site.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									



Looking north at the gravel site.
Cow Creek enters the South Umpqua River to the far left.



Aerial view of the gravel site, note I-5 in the upper right corner of the image.

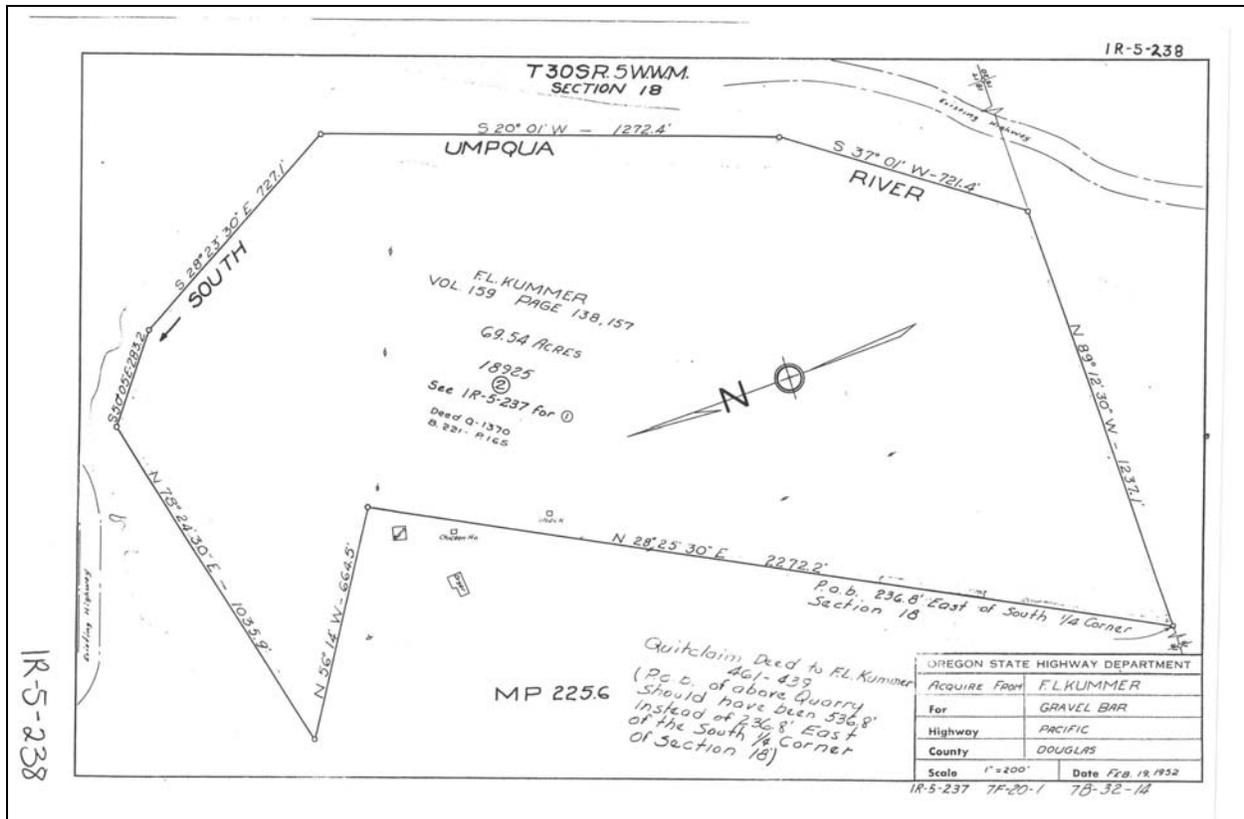
County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Kummer Gravel Bar				07	0001	103.7	30S	05.0W	18
File ID		Source #	Date Visited	Map #		Type of Site				
18925		10-037-3	6/16/1999	1R-5-238		Gravel				
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
42°58'01.2894"	123°21'15.5348"	218.047	62.4	<35 acres						
Comments										
GPS acquired at access road to the property.										
Rock Type	Unit	Color	Weathering		Jointing					
Metamorphic/Igneous Gravel	Qal	NA	NA		NA					
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good			NA	120	250,000	405,000				
Potentially Significant Site	Why			Open/Closed	Direction					
No	Almost depleted.			Closed	Adjacent to the South Umpqua River.					
Adjacent Land Use										
Forest										
Remarks										
This site is west of I-5 about 200 meters. The material here is a heterogeneous mix of sizes and lithologies. The size ranges from cobble to sand, with no dominant size. The lithology is igneous and metamorphic gravel. There is no screening but ample room to work. The access is from the west side of the hill near the town of Riddle. This site is near its life span.										
Final Comments										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
	2.661	15.4		1.0	19.5	30.6				
Material Use										
COARSE AC AGGREGATE (1999)										



Looking southwest across the South Umpqua River at the gravel site.



Close-up of the gravel at the site with the hammer for scale



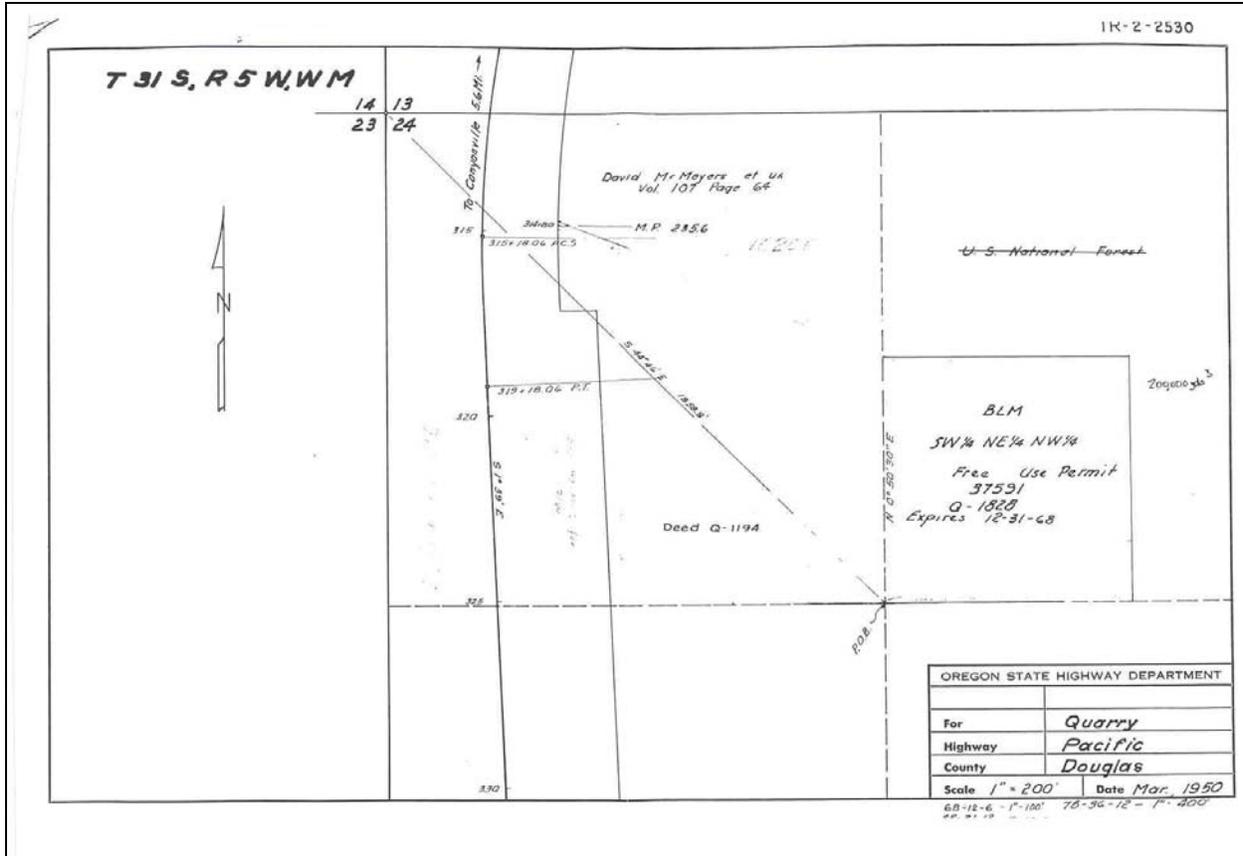
Aerial view of the gravel site along the river.
I-5 is the main road in the photograph.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Packard Creek Quarry			07	0001	93.4	31S	05.0W	24
File ID		Source #	Date Visited	Map #			Type of Site		
16206, 37591		10-041-3	4/18/2000	1R-2-2530			Quarry		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°52'00.38000"	123°14'32.77000"	429	33.96	<9 acres					
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type	Unit	Color		Weathering			Jointing		
Metavolcanics	Jv	NA		Slight			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Good to Fair			NA	166	300,000	672,300			
Potentially Significant Site	Why			Open/Closed	Direction				
No	No access to the property.			Closed	Packard Creek bisects the property.				
Adjacent Land Use									
Forest									
Remarks									
This site is located along Interstate 5, about 5 miles south of Canyonville. There is no access to this site from I-5 anymore. That would need to be addressed if we want to remove material here. The terrain is very steep in this area. There is some room to work here and there is screening from the highway. The front 24 acres have no disturbance that is visible. The quarry site would need minor development to remove more material. USA ground. The leased 10 acre site is depleted.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									

SW



Looking southwest at the quarry site (left center), with I-5 right center.



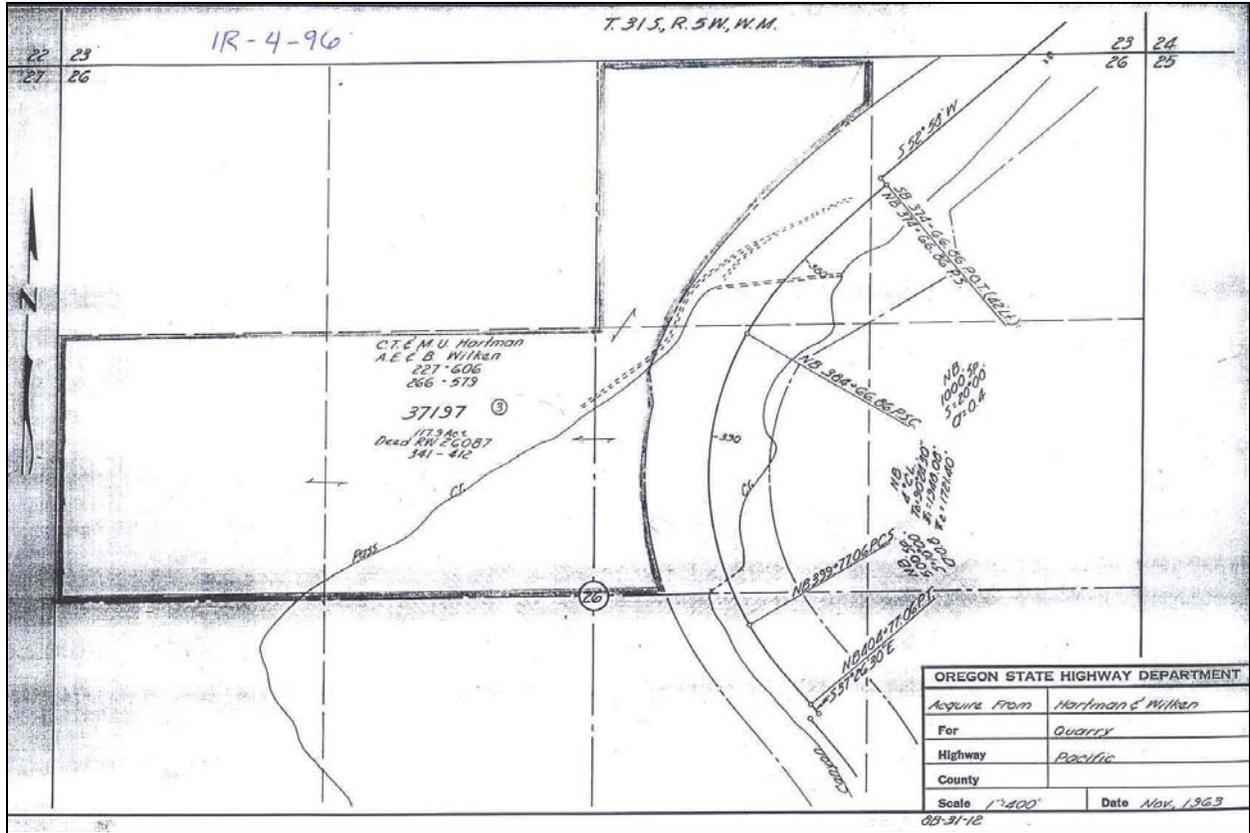
Aerial view of the quarry site that is east of I-5.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Wilken Prospect			07	0001	92.1	31S	05.0W	26
File ID		Source #	Date Visited	Map #			Type of Site		
37197		10-042-3	6/15/1999	1R-4-96			Raw Land		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°51'09.49223"	123°15'09.77668"	457.492	117.9	NA					
Comments									
GPS acquired along I-5 and the access point to Pass Creek.									
Rock Type	Unit	Color		Weathering			Jointing		
Metavolcanics	Jv	Grayish Olive Green (5GY 3/2)		Moderate to Slight			Highly to Moderately Fractured		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Poor to Fair			R2 to R3	166	1,900,000	4,257,900			
Potentially Significant Site	Why		Open/Closed		Direction				
Maybe	Large acreage, adjacent to I-5.		Closed		Pass Creek and Canyon Creek bisect the property.				
Adjacent Land Use									
Forest									
Remarks									
This site is about 5 miles south of Canyonville, on both sides Interstate 5. The rock at this site is a Greenstone. It can be soft, with a texture that is foliated/nonfoliated. The property has limited exposures to evaluate the ground and rock. There can be up to 10 feet of overburden here, in very steep terrain. There was a small forest fire here some time in the past, with charred trees still evident. There is limited to no screening and marginal room to work at this location due to the steepness of the terrain. There is some timber value and the property has not been developed.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
	2.59	24.88							
Material Use									
AC Pavement (1974)									



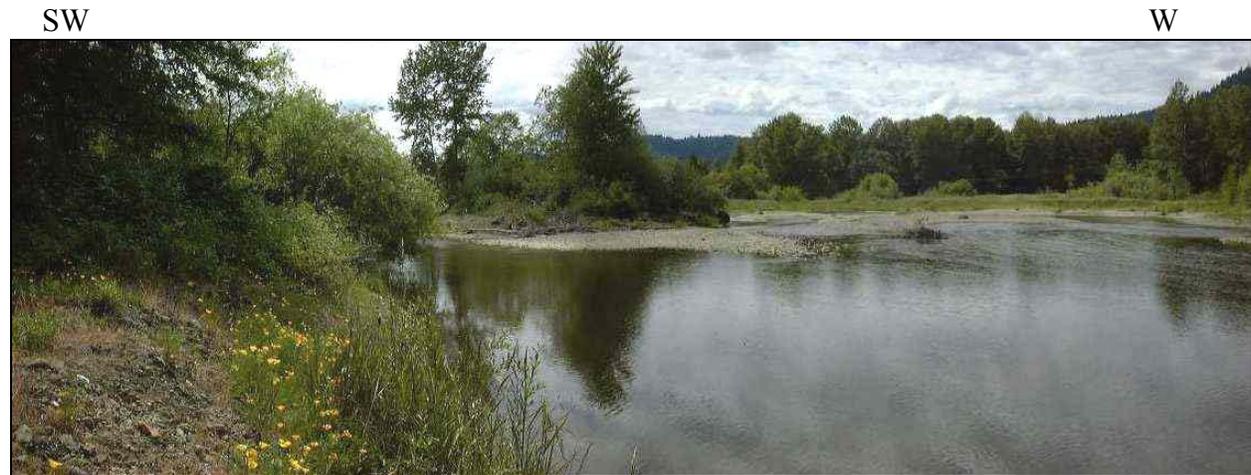
Looking southwest along I-5 at the roadcut with the vehicle at the access point, and the hammer for scale.

Close-up of the fracture pattern along the roadway.



Aerial view of the aggregate site along I-5, arrow points to the access point.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Booth Bar			07	0001	84.2	32S	05.0W	20
File ID		Source #	Date Visited	Map #			Type of Site		
12204		10-043-3	6/21/1999	1R-2-1538			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°46'06.95000"	123°18'47.69000"	486	5.36	NA					
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type		Unit	Color	Weathering		Jointing			
Metamorphic/Igneous Gravel		Qal	NA	NA		NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Good			NA	120	10,000	16,200			
Potentially Significant Site	Why			Open/Closed	Direction				
No	Small acreage with no access to the site, part of the property could be in the creek.			Closed	Adjacent to and in Cow Creek				
Adjacent Land Use									
Farming/Rural Residential									
Remarks									
This site is north of I-5 about 40 meters along Cow Creek. There is no access to the property from Interstate 5. The gravel is a heterogeneous mix of sizes and lithologies. There is no dominant size though the largest is around cobble. The lithologies are Metamorphic and Igneous gravel. Most of the ground appears to be in the creek. There is no room to work, and little screening from I-5. The gravel beds appear to be quite thin. This site would be good for wetland mitigation.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									



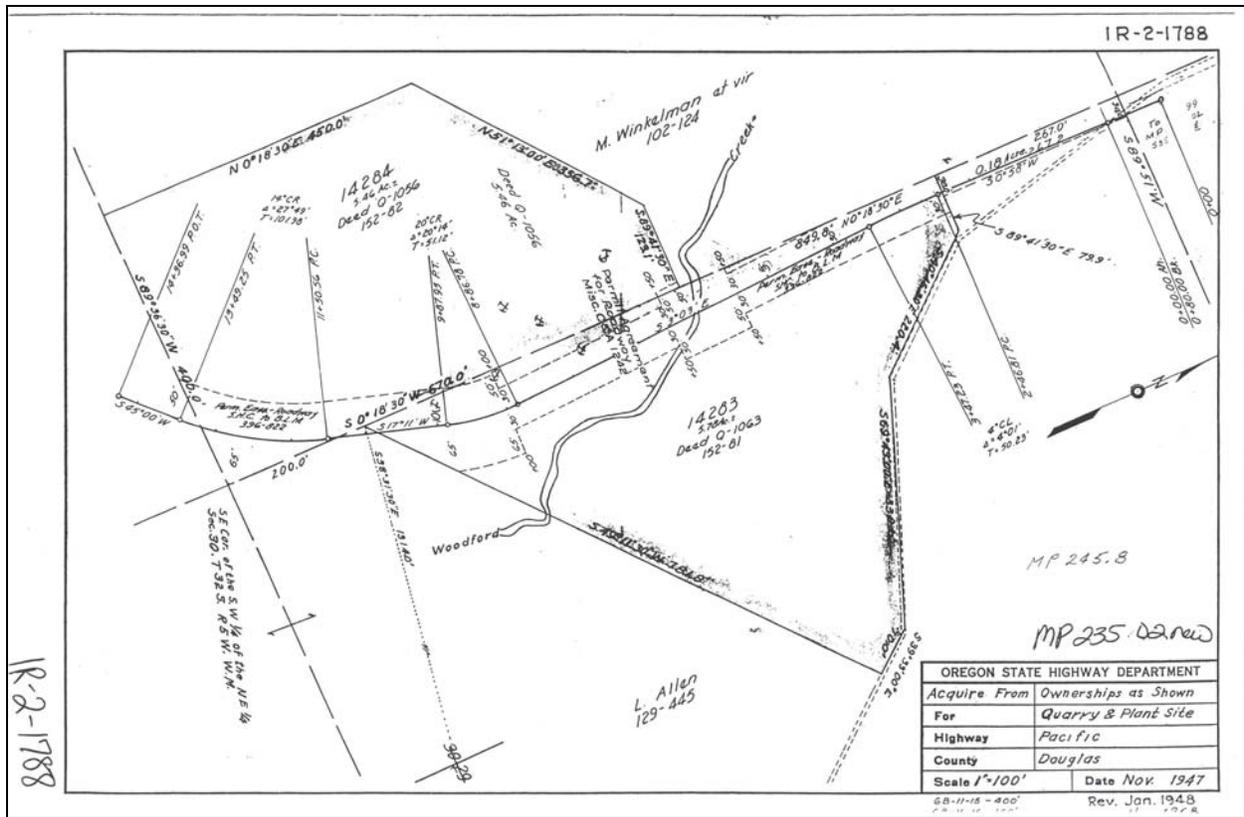
Looking southwest along Cow Creek at the gravel site.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Barton Park Bar				07	0001	83.3	32S	05.0W	30
File ID		Source #	Date Visited	Map #		Type of Site				
14284, 14283		10-044-3	6/15/1999	1R-2-1788		Quarry				
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
42°45'46.33721"	123°19'56.89521"	468.542	11.24	<2 acres						
Comments										
GPS acquired in the lower pit										
Rock Type	Unit	Color		Weathering		Jointing				
Metasediment	Js	Multiple		Slight to Fresh		Moderate to Highly Fractured				
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good to Fair			R3	203	96,000	263,088				
Potentially Significant Site	Why			Open/Closed	Direction					
No	Small acreage, half of the property is used as a stockpile site.			Closed	1000 meters to the north is Cow Creek.					
Adjacent Land Use										
Forest/Residents adjacent										
Remarks										
This site is located about 350 meters south of I-5. The material is composed of a highly fractured metavolcanic rock. There is moderate foliation of the texture that the quartz veinlettes delineate. There are minor amounts of blocky rock exposed along the benches. There can be up to 15 feet of overburden here. The terrain is very steep. There is a stockpile site associated with this property that is fenced. I did not recognize the lock and wonder if it might be a Douglas County lock. The quarry is not fenced. Approximately 80,000 cubic yards removed to date.										
Final Comments										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										

SW



Looking southwest at the pit floor and the pit face.
Gravel road to the right is to a private RV park.



Close-up image of the fracture pattern along the pit face with the hammer for scale.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Davis Bar				07	0001	83.4	32S	05.0W	19
File ID		Source #	Date Visited	Map #		Type of Site				
14291		10-045-3	6/15/1999	1R-2-1791		Gravel				
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
42°46'08.18000"	123°20'03.69000"	486	12.37	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type	Unit	Color	Weathering		Jointing					
Metamorphic Gravel	Qal	NA	NA		NA					
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good to Fair			NA	120	20,000	32,400				
Potentially Significant Site	Why			Open/Closed	Direction					
No	Douglas County is using the property on the south side of Cow Creek for a transfer station.			Closed	Cow Creek bisects the property.					
Adjacent Land Use										
County stock pile site and Transfer Station, residences on the north side of Cow Creek.										
Remarks										
This site is located south of I-5 off of Barton Road. The site is adjacent to the County Transfer Station and appears that we no longer control the ground. ODOT and Douglas County have some form of an agreement about the use of this property. The material here along Cow Creek is a heterogeneous mix of size and lithology. There is no room to work and no screening. The bedrock could be close to the surface at this location.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										

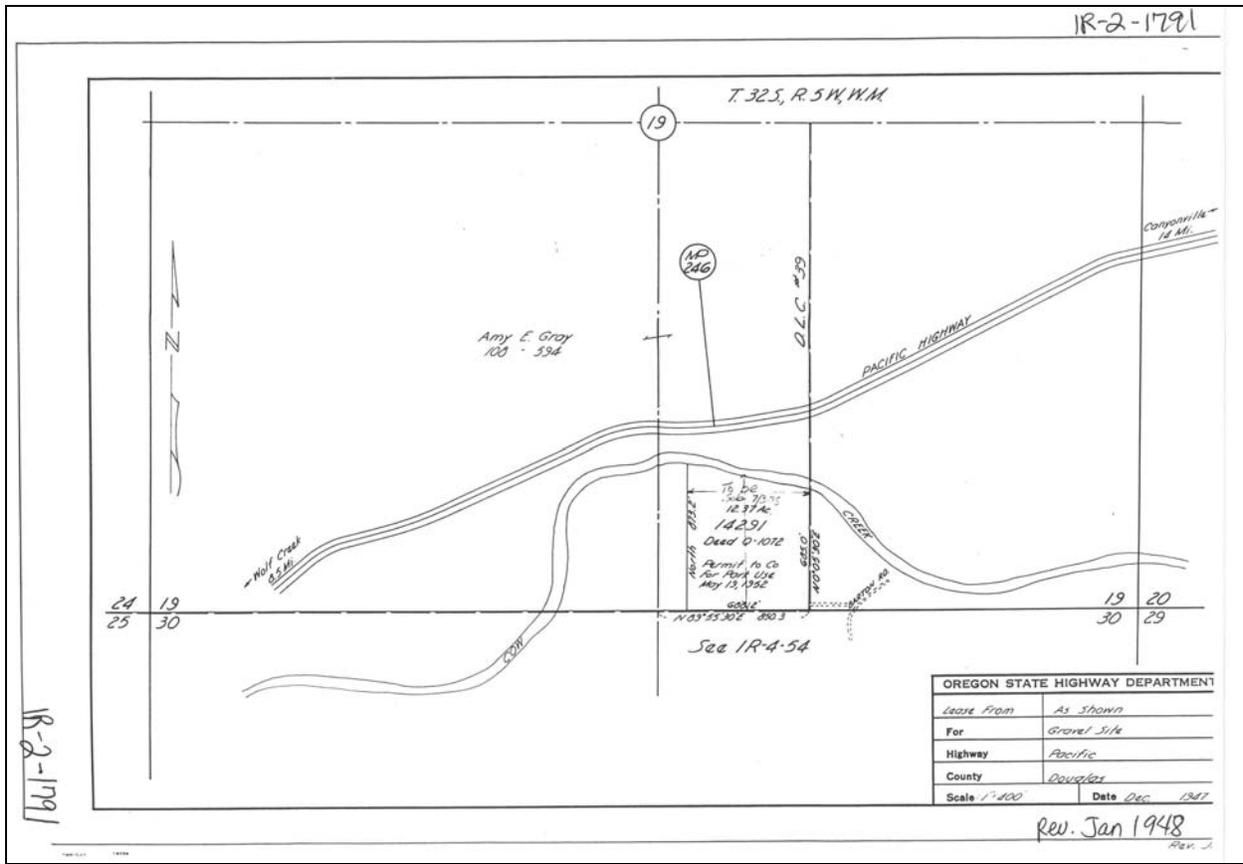
NE



Looking northeast from the Transfer Station to the gravel site along Cow Creek.



Close-up of the gravel at the site.



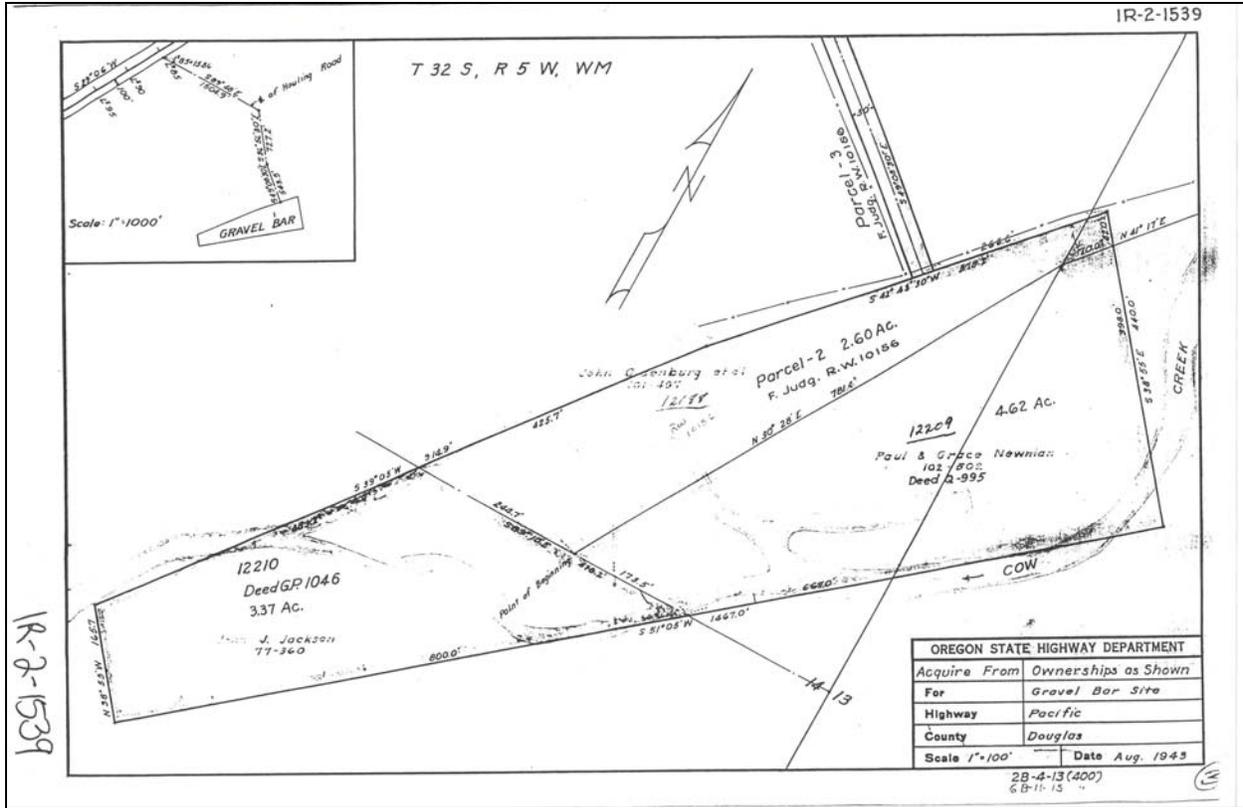
Aerial view of the gravel site in relation to Cow Creek and the surrounding area.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Oldenburg Bar			07	0001	87.5	32S	05.0W	13
File ID		Source #	Date Visited	Map #			Type of Site		
12210, 12188, 12209		10-050-3	6/15/1999	1R-2-1539			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°47'28.61000"	123°14'55.00000"	486	10.59	NA					
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type	Unit	Color		Weathering			Jointing		
Metamorphic Gravel	Qal	NA		NA			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Good to Fair			NA	120	38,000	61,560			
Potentially Significant Site	Why			Open/Closed	Direction				
No	Too small, no depth to the gravel.			Closed	Cow Creek bisects property.				
Adjacent Land Use									
Farming/Residences about 350 meters away.									
Remarks									
This site is located east of I-5 about 450 meters and adjacent to Cow Creek. The material is composed of well-rounded to angular mix of metamorphic gravel. The aggregate size is less than or equal to 10 centimeters, with up to 40% organic/sand particles. This site is moderately narrow, with Cow Creek meandering back and forth on the property. This area could be developed for paleog gravel away from the waters edge. The property is covered in vegetation with no visible disturbance. There is ample room to work and some screening from the road. The site is only a few feet above the creek.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									

SE



Looking southeast at the gravel site along Cow Creek.
The creek is just inside the trees.



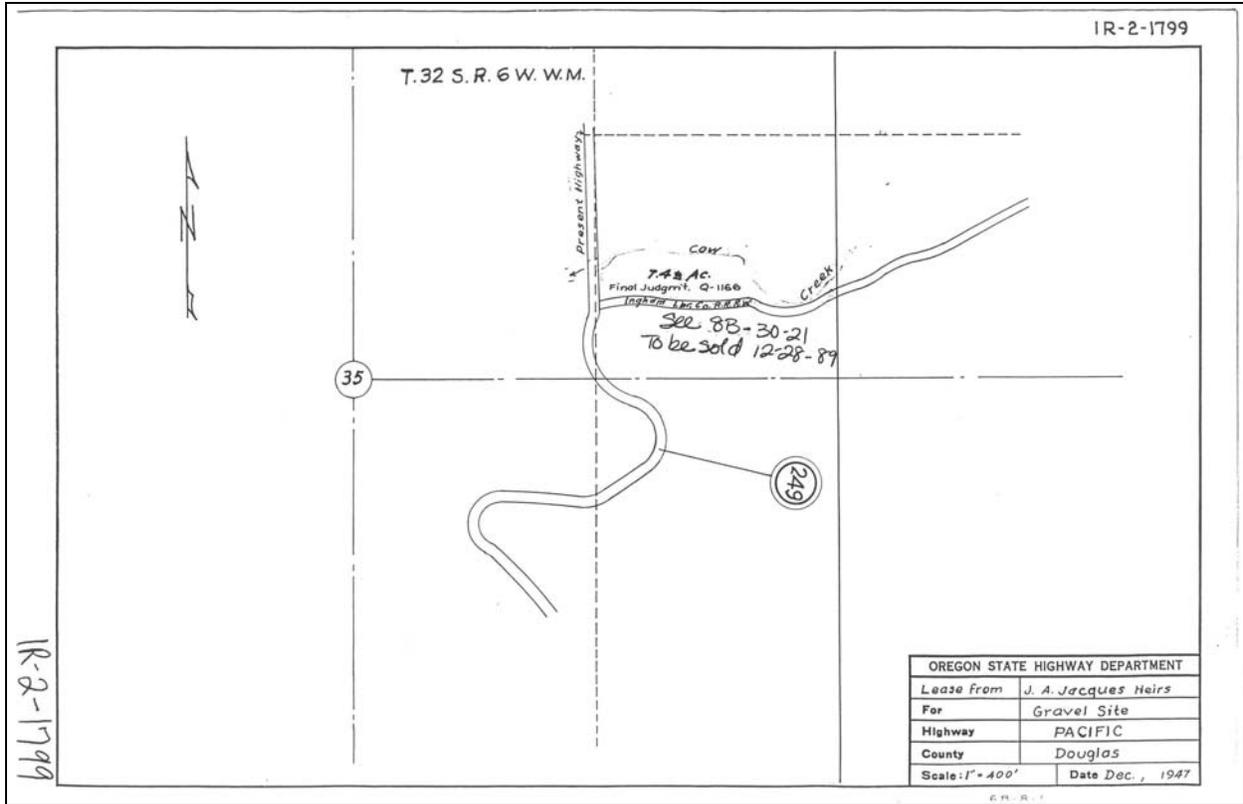
Aerial view of the gravel site, the right arrow is on the creek and the left arrow is pointing to the access point.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Jacques Bar				07	0001	80.8	32S	06.0W	35
File ID		Source #	Date Visited	Map #			Type of Site			
14324		10-054-3	6/15/1999	1R-2-1799			Gravel			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
42°44'54.21000"	123°22'19.96000"	486	7.4	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type		Unit	Color		Weathering			Jointing		
Metamorphic/Igneous Gravel		Qal	NA		NA			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)		Reserve (Tons)			
Good			NA	120	10,000		16,200			
Potentially Significant Site	Why			Open/Closed	Direction					
No	Small acreage, no depth of the gravel.			Closed	Adjacent to Cow Creek					
Adjacent Land Use										
Residence adjacent to the south about 100 meters/Commercial business to the north across the creek about 100 meters										
Remarks										
This site is located on the north side of Cow Creek at the Glendale Junction, just north of I-5. The property is long and narrow with thin gravel beds along the creek. The material is composed of cobble size and less gravel. The ground is overgrown in vegetation. Good site for mitigation and wetland potential. From the IR map it is not evident which side of the stream the property is on.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										

E



Looking east from the bridge over Cow Creek to the gravel site below (bottom left corner).



Aerial view of the gravel site in relation to the surrounding area.
Note that I-5 is in the bottom right corner of the image.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Weaver Bar			07	0001	0	30S	05.0W	24
File ID		Source #	Date Visited	Map #			Type of Site		
07885, 08355		10-055-3	6/15/1999	1R-2-951			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
42°56'58.44000"	123°14'17.20000"	243	7.23	NA					
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type		Unit	Color	Weathering			Jointing		
Igneous/Metamorphic Gravel		Qal	NA	NA			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Good to Fair			NA	120					
Potentially Significant Site	Why			Open/Closed	Direction				
No	Too small, very little aggregate left.			Closed	Adjacent to the South Umpqua River.				
Adjacent Land Use									
Farm/Douglas County scales adjacent west.									
Remarks									
This site is on the outside of the river radius. The trace of the South Umpqua River has moved to the south and removed some of the material from this site. There has been some land trading with Douglas County and this piece of property has lost some ground to the County Truck Scales. There is no visible easement to this site. I had to climb over the ranchers locked gate to reach this site. This property should be re-evaluated for the property boundaries. This site is located on the old State Highway 230, a highway we no longer manage. I grouped this site with State Highway 1, because of its proximity to the Interstate.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									

NE



Looking northeast at the gravel location beyond the truck (center of the image).

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Dysert Bar			07	0035	67	28S	07.0W	27
File ID		Source #	Date Visited	Map #			Type of Site		
18580		10-063-3	6/17/1999	1R-5-197			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
43°06'12.63000"	123°31'02.58000"	212	7	NA					
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type			Unit	Color		Weathering		Jointing	
Volcanic/Metamorphic Gravel			Qal	NA		NA		NA	
Quality			Hardness	lbs./cu ft.		Reserve (cy)		Reserve (Tons)	
Good			NA	120					
Potentially Significant Site	Why			Open/Closed		Direction			
No	Too small, almost depleted of gravel.			Closed		Olalla Creek bisects the property			
Adjacent Land Use									
Farming/Residents adjacent north and south.									
Remarks									
This site is located between Olalla Creek and the County Road. The ground has had minor past disturbance. There has been some planting of fir trees on the perimeter of a small pit with limited success. The property or site has no depth to the gravel adjacent to Olalla and Tennile Creeks. This property is overgrown with vegetation, and has had some reclamation work done here. This site might have mitigation potential.									
Final Comments									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									

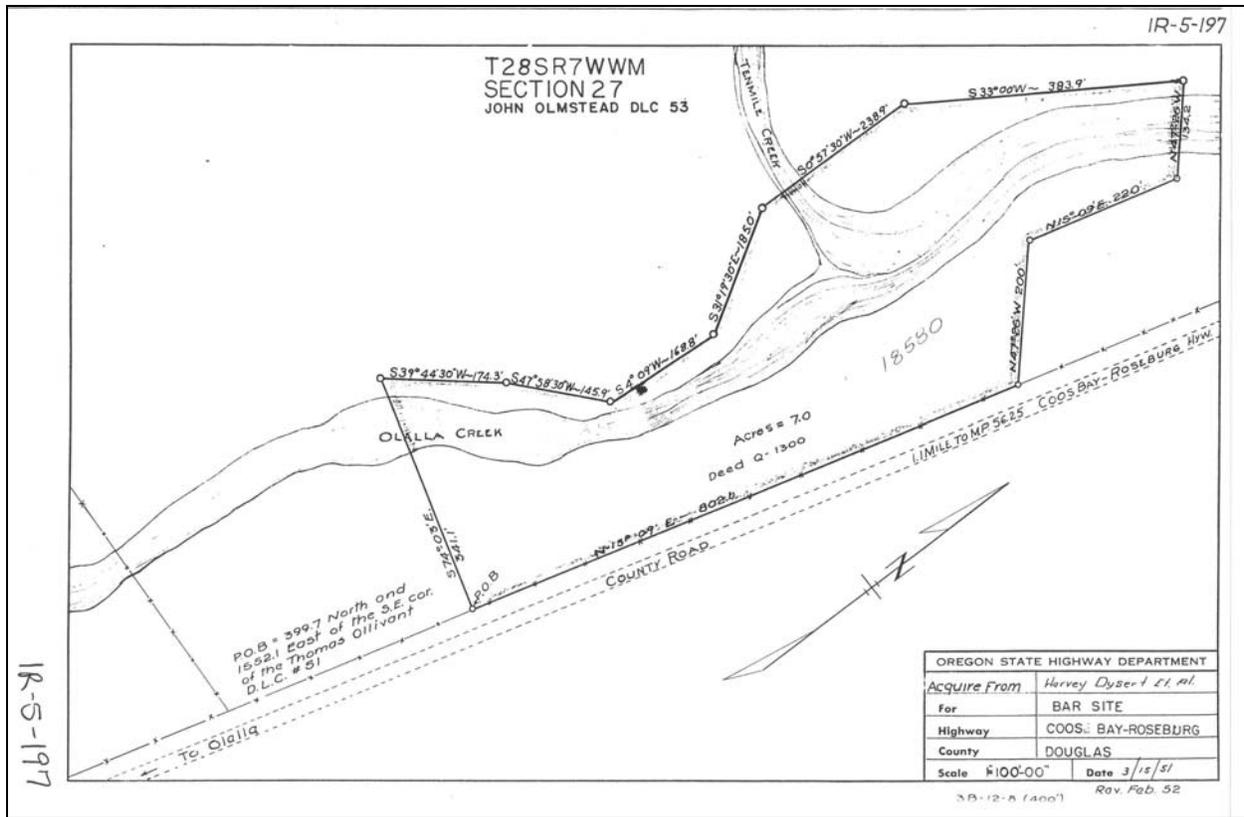
N



Looking north at the gravel location along the County road and Olalla Creek



Close-up of the gravel along the creek with a camera case for scale.



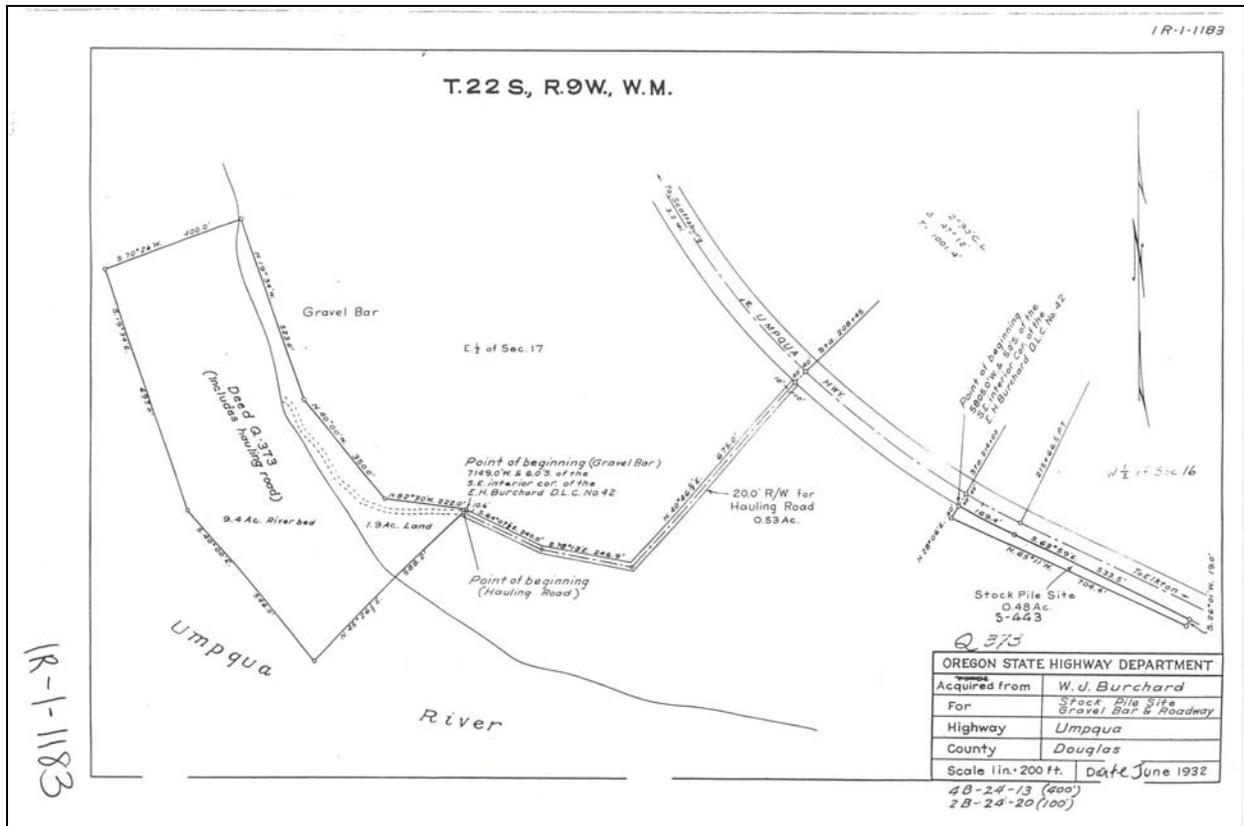
Aerial view of the gravel site and the surrounding area.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Burchard Gravel Bar			07	0045	20.3	22S	09.0W	16
File ID		Source #	Date Visited	Map #			Type of Site		
01552		10-070-3	6/07/1999	1R-1-1183			Gravel		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
43°39'26.75000"	123°47'07.11000"	52	11.83	NA					
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type	Unit	Color		Weathering			Jointing		
NA	Qal	NA		NA			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
NA			NA	120					
Potentially Significant Site	Why			Open/Closed	Direction				
No	Wrong size and type of material at this location. This site is surrounded by homes now.			Closed	Adjacent to and in the Umpqua River.				
Adjacent Land Use									
Farming/Residential									
Remarks									
This site is adjacent to and in the Umpqua River. Majority of the property (90%) is in the river bed, the rest is adjacent to the river with a small stockpile site next to Highway 38. The easement to this site from the highway is not evident any more. There are new fences that block the access. The material at this site is composed of sand and silt size particles that have been deposited in a low energy river environment. There are newer home sites adjacent to this area now. This property might have some mitigation potential.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									

SE



Looking southeast to the gravel site within the Umpqua River.



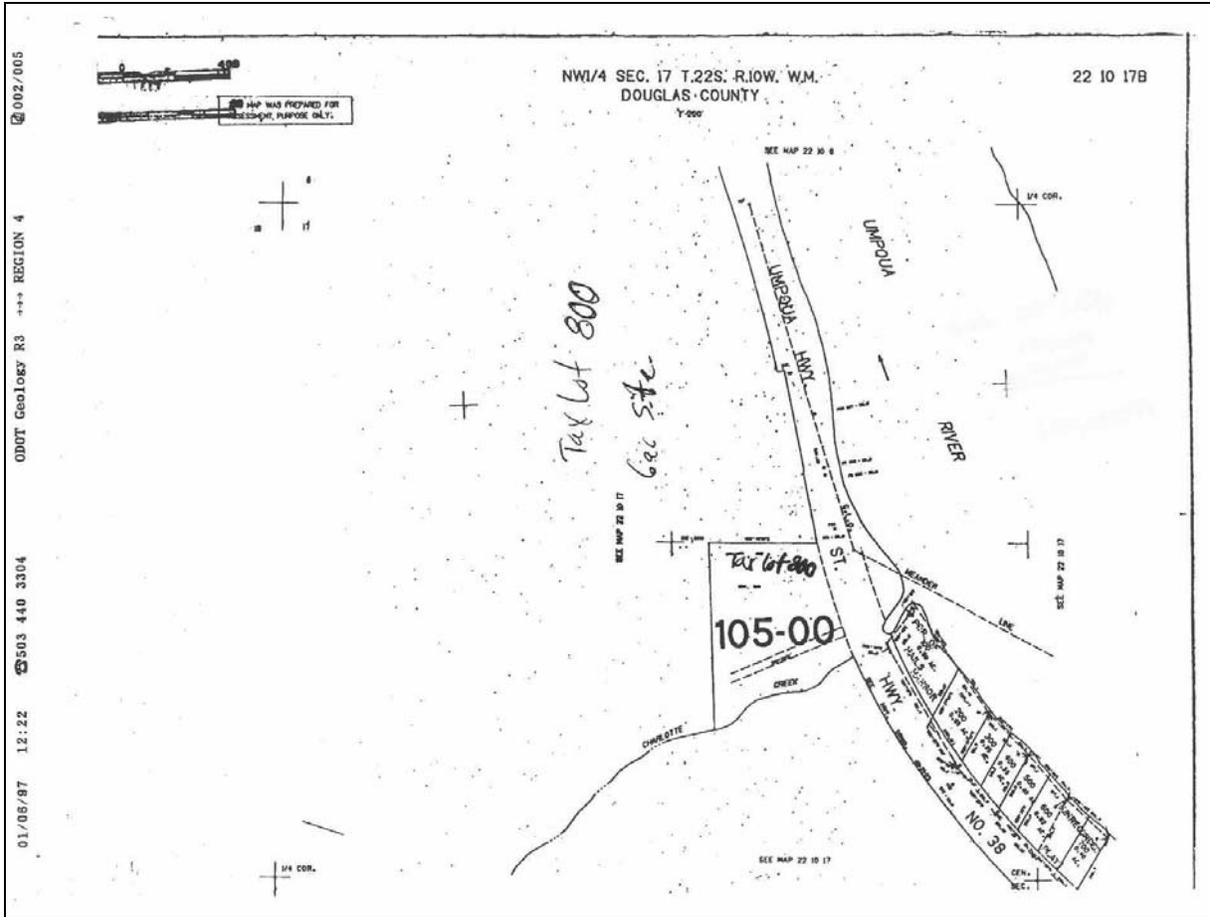
Aerial view of the site within the river along Highway 38.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Charlotte Creek			07	0045	10.7	22S	10.0W	17
File ID		Source #	Date Visited	Map #			Type of Site		
NA		10-086-3	4/18/2000	NA			Quarry		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #				
43°39'36.96000"	123°55'15.11000"	32	6	<1 acre	10-0143				
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type	Unit	Color		Weathering			Jointing		
Sandstone	Tt	Dark Greenish Grey (5G 4/1)		Fresh			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
Good to Fair			R2 to R3	156	100,000	210,600			
Potentially Significant Site	Why	Open/Closed		Direction					
No	Small acreage	Closed		Charlotte Creek is adjacent to the east and the Umpqua River across the highway to the north about 100 meters.					
Adjacent Land Use									
Forest									
Remarks									
This site is located adjacent to and south of Highway 38. The material being mined is a medium-grain sandstone with some minor lenses of mudstone mixed in. This site had been shot a couple of months prior to my visit. They have been removing rip rap and stockpiling the material east of here along the highway. The rock is massive and could be used for rip rap in some capacity. The terrain is very steep (30 to 35%) with no screening from the highway and limited room to work. There is little to no overburden at this location. This site has no IR-map for reference. The ground is part of the right-of-way along the highway.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									

SW



Looking southwest at the quarry site along Charlotte Creek.



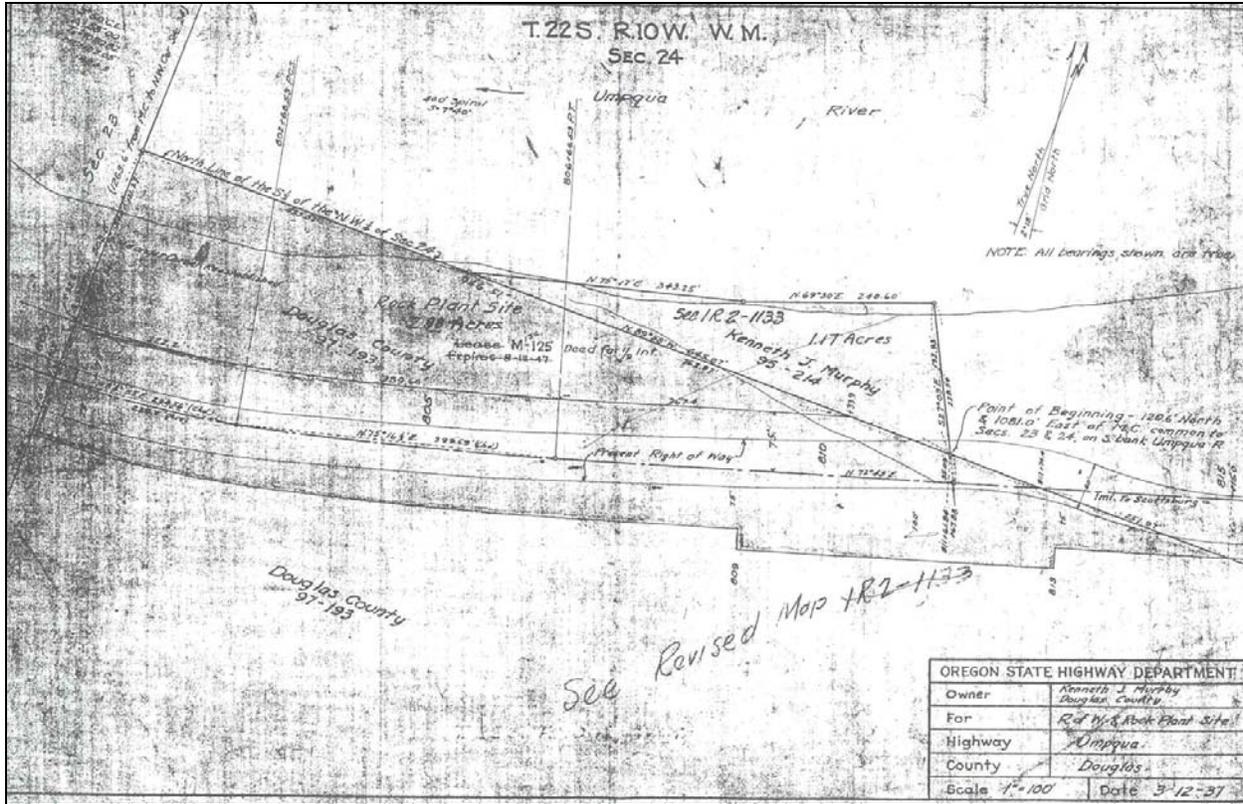
Close-up of the Sandstone with the hammer for scale.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Wilson Ranch-Scottsburg				07	0045	15.4	22S	10.0W	24
File ID		Source #	Date Visited	Map #			Type of Site			
4521A		10-087-3	6/07/1999	1R-1-1705			Gravel			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
43°38'49.65000"	123°50'42.21000"	59	2.98	NA						
Comments										
Lat. and Long. acquired using Terrain Navigator Software										
Rock Type	Unit	Color		Weathering			Jointing			
Gravel	Qal	NA		NA			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
NA			NA	120						
Potentially Significant Site	Why			Open/Closed	Direction					
No	This is a waste site.			Closed	Adjacent to the Umpqua River.					
Adjacent Land Use										
County Park to the east and Residences across the Umpqua River in Scottsburg.										
Remarks										
This site is located between Highway 38 and the Umpqua River. It is very near the County Park southwest of Scottsburg. It is a small narrow piece of ground that is being used as a waste site now. The ground is approximately 8 feet above the river and about 8 feet below the highway. This site might have mitigation potential.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										

W



Looking west at the gravel site along the Umpqua River.



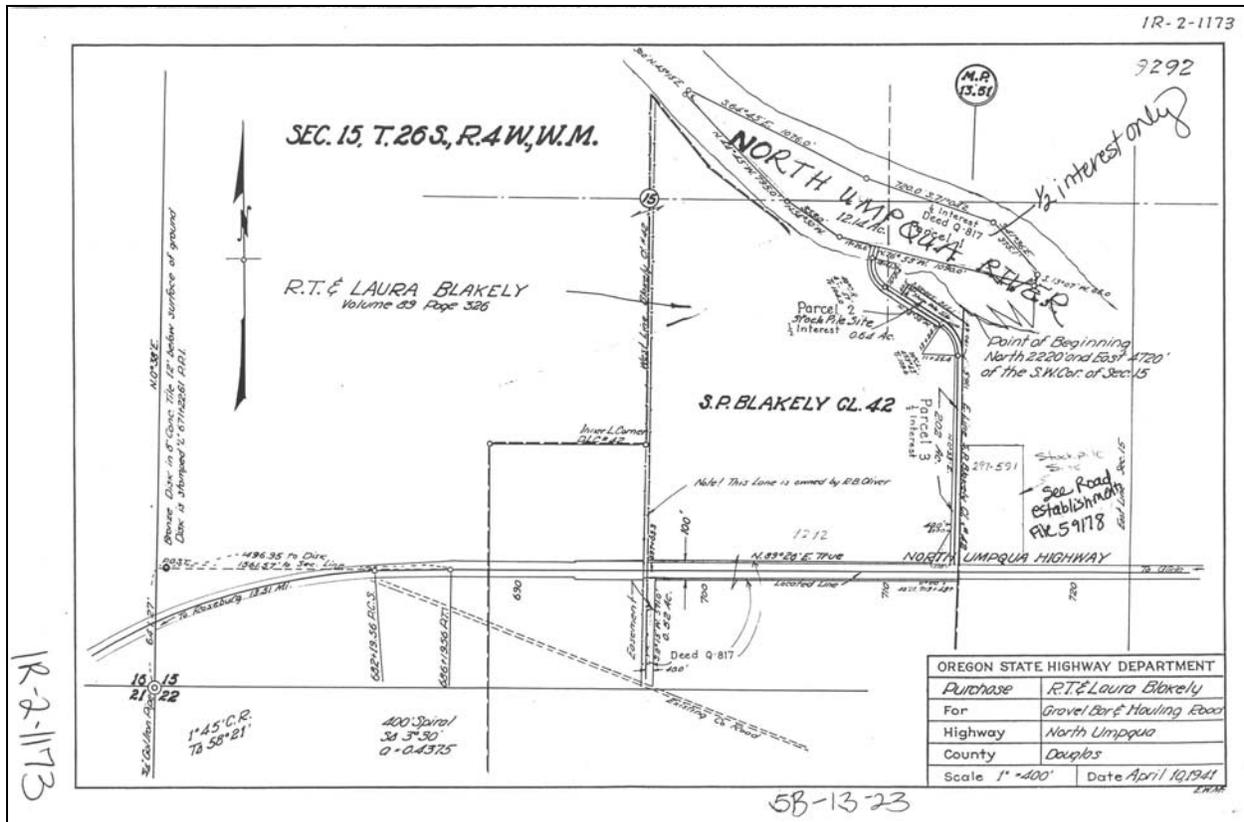
Aerial view of the gravel site and the surrounding area.
The County Park is adjacent to the northeast.

County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas	Blakely Bar				07	0073	12.1	26S	04.0W	15
File ID		Source #	Date Visited	Map #			Type of Site			
09292		10-250-3	6/17/1999	1R-2-1173			Gravel			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
43°18'11.19477"	123°09'08.95793"	211.458	15.32	NA						
Comments										
GPS acquired at access road and Highway 138.										
Rock Type	Unit	Color		Weathering			Jointing			
Volcanic Gravel	Qal	NA		NA			NA			
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good			NA	120	20,000	32,400				
Potentially Significant Site	Why			Open/Closed	Direction					
No	In the river, no access out there.			Closed	In the North Umpqua River.					
Adjacent Land Use										
Rural/Residential										
Remarks										
This site is west of Glide and about 200 meters south of Highway 138. The ground occupies an island in the middle of the North Umpqua River. We would need to develop access out to the property if we wish to use this site. This site has possible mitigation potential. One Half interest with Douglas County.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
Material Use										

N



Looking north across the North Umpqua River at the gravel site in the middle of the river.

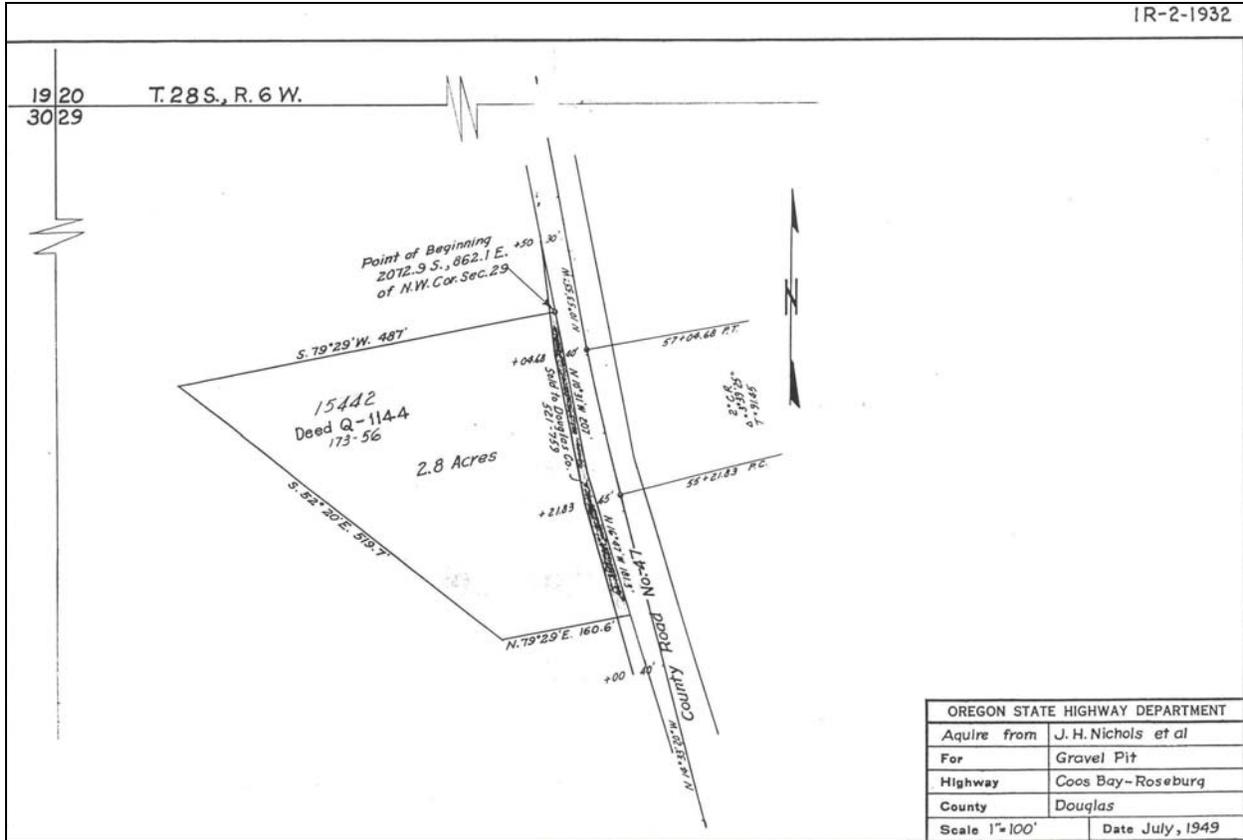


Aerial view of the gravel bar in the river.
Highway 138 is on the bottom portion of the photograph.

County	Site Name			Dist	Hwy	Mile Pt	TWP	RGE	Sect
Douglas				07	0035	0	28S	06.0W	29
File ID		Source #	Date Visited	Map #			Type of Site		
15442		10-261-3	6/14/1999	1R-2-1932			Stock Pile		
Latitude	Longitude	Elev. (m)	Acreage	Pit Size		DOGAMI Permit #			
43°06'19.79000	123°26'26.29000	173	2.8	NA					
Comments									
Lat. and Long. acquired using Terrain Navigator Software									
Rock Type	Unit	Color		Weathering			Jointing		
NA	Qal	NA		NA			NA		
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)			
NA			NA	0					
Potentially Significant Site	Why	Open/Closed		Direction					
No	Too small	Closed		South Umpqua River to the east about 700 meters.					
Adjacent Land Use									
Rural residential									
Remarks									
This site is used by Maintenance for storage.									
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.	
Material Use									



Aerial view of the stockpile site along the county road.
 Arrow shows the approximate location.



County	Site Name				Dist	Hwy	Mile Pt	TWP	RGE	Sect
Klamath	Buckeye Butte				07	0425	213.09	29S	07.0E	02
File ID		Source #	Date Visited	Map #			Type of Site			
16774		18-008-4	07/13/2000	1R-5-289			Cinder Pit			
Latitude	Longitude	Elev. (m)	Acreage	Pit Size	DOGAMI Permit #					
42°37'59.55278"	121°56'12.69068"	1265.728	21.25	<2acres	18-0072					
Comments										
GPS acquired in the pit.										
Rock Type	Unit	Color	Weathering			Jointing				
Cinder	QTp	NA	NA			NA				
Quality			Hardness	lbs./cu ft.	Reserve (cy)	Reserve (Tons)				
Good to Fair			NA	120	90,000	145,800				
Potentially Significant Site	Why			Open/Closed	Direction					
No	NA			Closed	NA					
Adjacent Land Use										
Open space										
Remarks										
This is a cinder pit about a mile west of Highway 97, just north of Highway 138. The cinder is not as clean as some of our pits. There can be some waste here due to the large lithified layers of cinder/ basalt intermixed. Plenty of room to work, fair screening. This site is located within District 7.										
202B	203B	211	206 Fine	206 Coarse	208 F	208 F Ht.	208 C	208 C Ht.		
	2.71	31.8								
Material Use										
(1961)										



Looking to the north at the cinder pit with the Suburban for scale.



Close-up image of the cinders.

