



**ASTM D6938 In-Place Density and Water Content of Soil and
Soil-Aggregate by Nuclear Methods (Shallow Depth)**

**Project: Polychrome Pass
Denali National Park, Ak
Client: Granite Construction Company**

**Project #: 2025-083
Date: June 19, 2026
Area Tested: West Side Culvert**

Material / Source:

**West Embankment/ Existing 3" 119.9
minus/ CLI Pit 147.3**

**Gauge: Instron 3500
Operator: Wayne Harding**

Ser: # 898

Test #	Soil Type	Test Depth(in)	Lift Elev	Location	Wet Density	% Moist.	Dry Density	Max Density	Percent Density	Required Density
1	24-1021-01	6"	2	West side culvert right of pipe 25ft off Inlet	133.9	13.8	117.7	119.9	98.1%	95%
2	24-1021-01	6"	2	West side culvert left of pipe 30ft off Inlet	135.0	13.3	119.2	119.9	99.4%	95%
3	24-1021-01	6"	3	West side culvert right of pipe 20ft off Inlet	131.7	13.1	116.4	119.9	97.1%	95%
4	24-1021-01	6"	3	West side culvert left of pipe 30ft off Inlet	129.7	11.7	116.1	119.9	96.8%	95%
5	24-1021-01	6"	4	West side culvert right of pipe 30ft off Inlet	132.2	9.4	120.8	119.9	100.8%	95%
6	24-1021-01	6"	4	West side culvert left of pipe 25ft off Inlet	133.8	12.4	119.0	119.9	99.3%	95%
7	24-1021-01	6"	5	West side culvert right of pipe 35ft off Inlet	136.0	12.5	120.9	119.9	100.8%	95%
8	24-1021-01	6"	5	West side culvert left of pipe 25ft off Inlet	133.6	11.1	120.3	119.9	100.3%	95%
9	24-1021-01	6"	6	West side culvert right of pipe 30ft off Inlet	134.1	11.6	120.2	119.9	100.2%	95%
10	24-1021-01	6"	6	West side culvert left of pipe 25ft off Inlet	130.9	10.7	118.2	119.9	98.6%	95%



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11	24-1021-01	6"	7	West side culvert right of pipe 20ft off Inlet	128.4	11.4	115.3	119.9	96.1%	95%
12	24-1021-01	6"	7	West side culvert left of pipe 35ft off Inlet	131.2	12.2	116.9	119.9	97.5%	95%
13	24-1021-01	10"	1	West side culvert right of pipe 50ft off Inlet	130.8	13.1	115.6	119.9	96.5%	95%
14	24-1021-01	10"	1	West side culvert left of pipe 50ft off Inlet	128.7	10.9	116.1	119.9	96.8%	95%
15	24-1021-01	6"	2	West side culvert right of pipe 50ft off Inlet	130.5	11.1	117.5	119.9	98.0%	95%
16	24-1021-01	6"	2	West side culvert left of pipe 50ft off Inlet	133.0	14.2	116.5	119.9	97.1%	95%
17	24-1021-01	6"	3	West side culvert right of pipe 45ft off Inlet	132.0	11.3	118.6	119.9	98.9%	95%
18	24-1021-01	6"	3	West side culvert left of pipe 55ft off Inlet	127.6	10.4	115.6	119.9	96.4%	95%
19	24-1021-01	6"	4	West side culvert right of pipe 45ft off Inlet	134.8	11.8	120.6	119.9	100.6%	95%



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20	24-1021-01	6"	4	West side culvert left of pipe 55ft off Inlet	132.5	11.4	118.9	119.9	99.2%	95%
21	24-1021-01	6"	5	West side culvert right of pipe 45ft off Inlet	128.7	11.4	115.5	119.9	96.4%	95%
22	24-1021-01	6"	5	West side culvert left of pipe 22ft off Inlet	130.4	11.0	117.5	119.9	98.0%	95%
23	24-1021-01	6"	6	West side culvert right of pipe 45ft off Inlet	133.8	12.2	119.3	119.9	99.5%	95%
24	24-1021-01	6"	6	West side culvert left of pipe 55ft off Inlet	132.1	11.2	118.8	119.9	99.1%	95%
25	26-248	6"	22	Gabion Wall Backfill East	150.7	5.8	142.4	147.3	96.7%	95%
26	26-248	6"	22	Gabion Wall Backfill West	146.8	3.8	141.4	147.3	96.0%	95%
27	24-1021-01	10"	1	West side culvert right of pipe 70ft off Inlet	131.5	11.1	118.4	119.9	98.7%	95%
28	24-1021-01	10"	1	West side culvert left of pipe 75ft off Inlet	130.0	10.7	117.4	119.9	97.9%	95%
29	24-1021-01	6"	2	West side culvert right of pipe 80ft off Inlet	126.8	9.9	115.4	119.9	96.2%	95%

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30	24-1021-01	6"	2	West side culvert left of pipe 70ft off Inlet	130.8	10.6	118.3	119.9	98.6%	95%
31	24-1021-01	6"	3	West side culvert right of pipe 75ft off Inlet	126.7	9.1	116.1	119.9	96.9%	95%
32	24-1021-01	6"	3	West side culvert left of pipe 65ft off Inlet	127.6	9.4	116.6	119.9	97.3%	95%