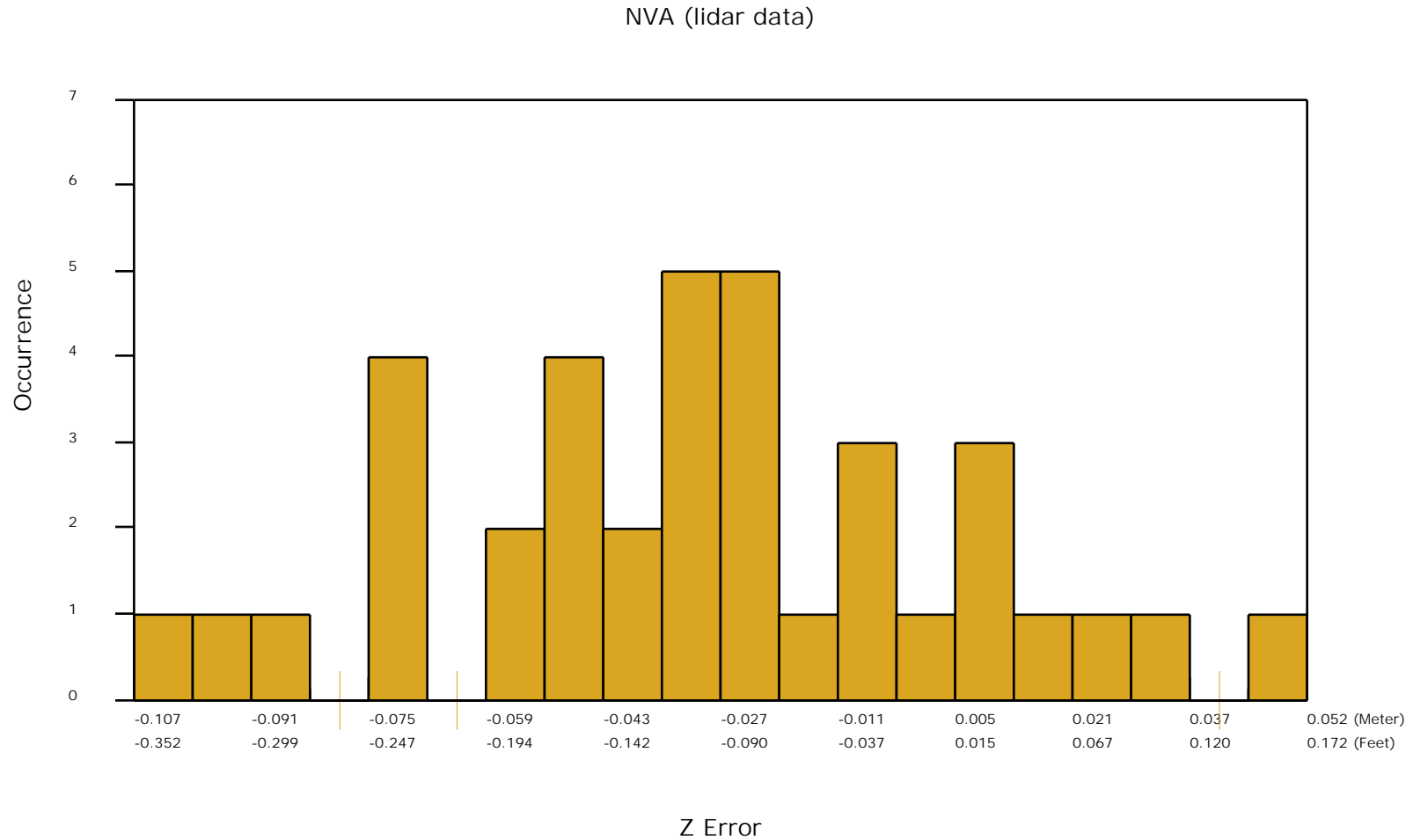


DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to show a frequency distribution chart of the non-vegetated vertical accuracy (NVA) of the lidar point cloud data measured against surveyed ground check points.

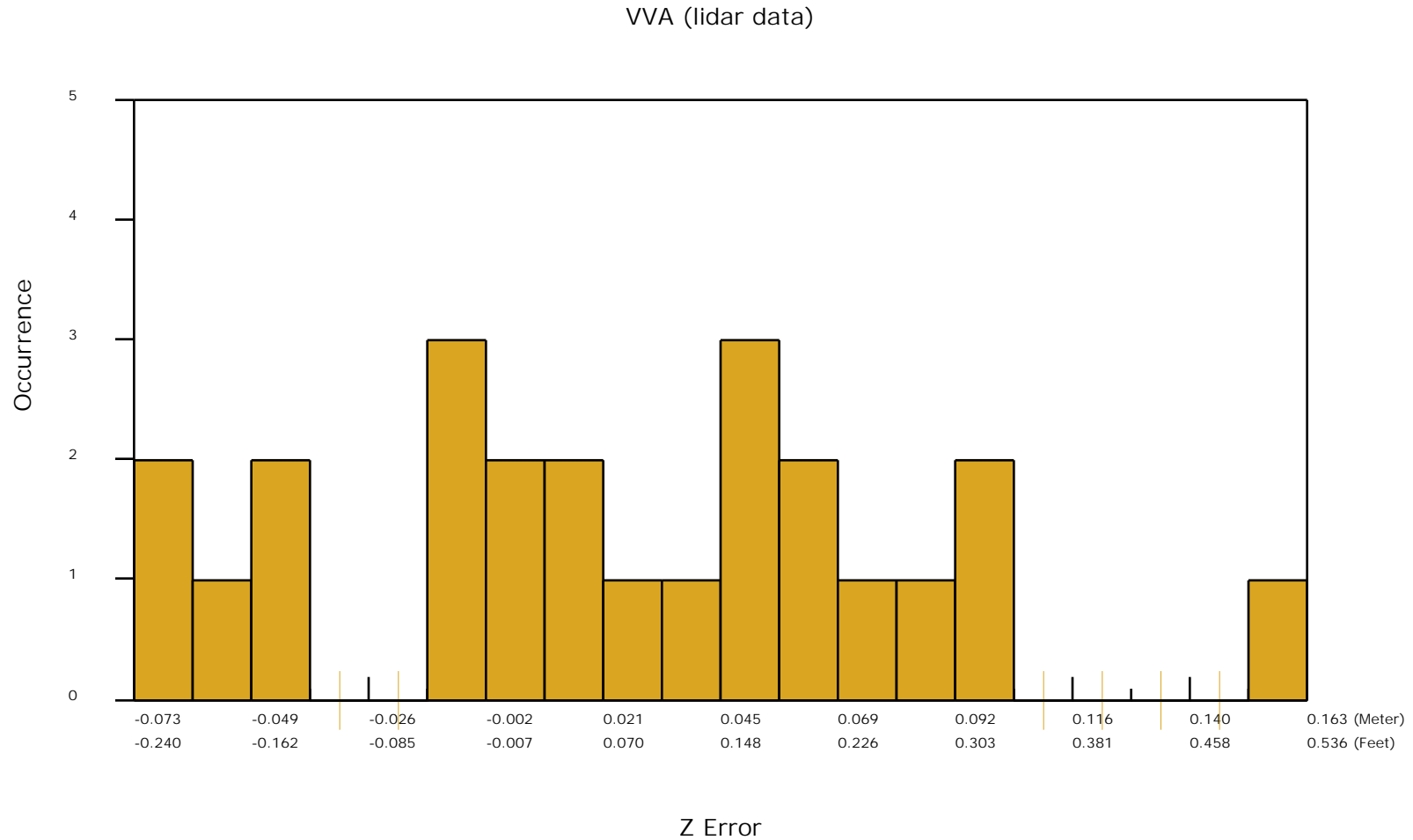
[Data Source - V:\Mapping\Projects\65221273_MN_UpperMSRiver\Production\Final_Client_Deliverables\230958\MN_UpperMSRiver_2_B22_300138\point_cloud\tilecls](#)



DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to show a frequency distribution chart of the vegetated vertical accuracy (VVA) of the lidar point cloud data measured against surveyed ground check points.

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DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to report the results of measuring the DEM data against surveyed ground NVA (nonvegetated vertical accuracy) check points. All XY coordinates and Z values reported are in the selected data units.

NVA (DEM)

ID	X	Y	Coverage	Z	Z From Lidar	Z Error	Description	Comments
2006	481090.414	5294953.47	Yes	429.179	429.143	-0.036		
2008	441873.64	5295563.611	Yes	420.395	420.343	-0.052		
2050	335805.074	5275136.559	Yes	441.564	441.554	-0.010		
2056	414568.073	5276274.714	Yes	413.718	413.698	-0.020		
2060	353458.261	5273639.988	Yes	427.277	427.263	-0.014		
2062	392075.124	5292938.13	Yes	421.9	421.896	-0.004		
2071	370879.58	5283559.944	Yes	428.625	428.636	0.011		
2072	453084.905	5303547.615	Yes	404.149	404.124	-0.025		
2089	425944.456	5296511.506	Yes	417.58	417.597	0.017		
2099	404980.872	5287868.163	Yes	418.395	418.407	0.012		
2100A	435449.879	5276941.003	Yes	413.54	413.525	-0.015		
2102	474356.413	5294937.1	Yes	421.554	421.505	-0.049		
2117	493563.54	5291632.705	Yes	391.387	391.350	-0.037		
2127	350074.01	5289992.714	Yes	412.964	412.912	-0.052		
2155	450799.892	5287813.412	Yes	402.228	402.174	-0.054		
2156	422008.121	5287793.425	Yes	404.621	404.571	-0.050		
2157	399029.772	5300130.728	Yes	430.233	430.267	0.034		
2157A	392405.97	5303440.737	Yes	414.256	414.222	-0.034		
2161	441900.41	5278919.574	Yes	436.177	436.128	-0.049		
2179	389030.059	5287353.228	Yes	434.269	434.284	0.015		
2180	408042.765	5279034.787	Yes	412.14	412.123	-0.017		
2181	358004.632	5283092.488	Yes	419.274	419.257	-0.017		
2190	373724.283	5303804.909	Yes	370.153	370.144	-0.009		
2190A	384812.112	5303528.54	Yes	404.594	404.495	-0.099		
2193	485494.166	5283507.473	Yes	419.803	419.793	-0.010		
2199	377465.038	5282747.173	Yes	428.714	428.642	-0.072		
2200	429662.947	5283181.871	Yes	415.68	415.621	-0.059		
2205	456963.097	5295054.316	Yes	404.972	404.907	-0.065		
2208	492332.973	5302708.017	Yes	411.31	411.258	-0.052		
2209	441962.631	5302721.728	Yes	405.731	405.664	-0.067		

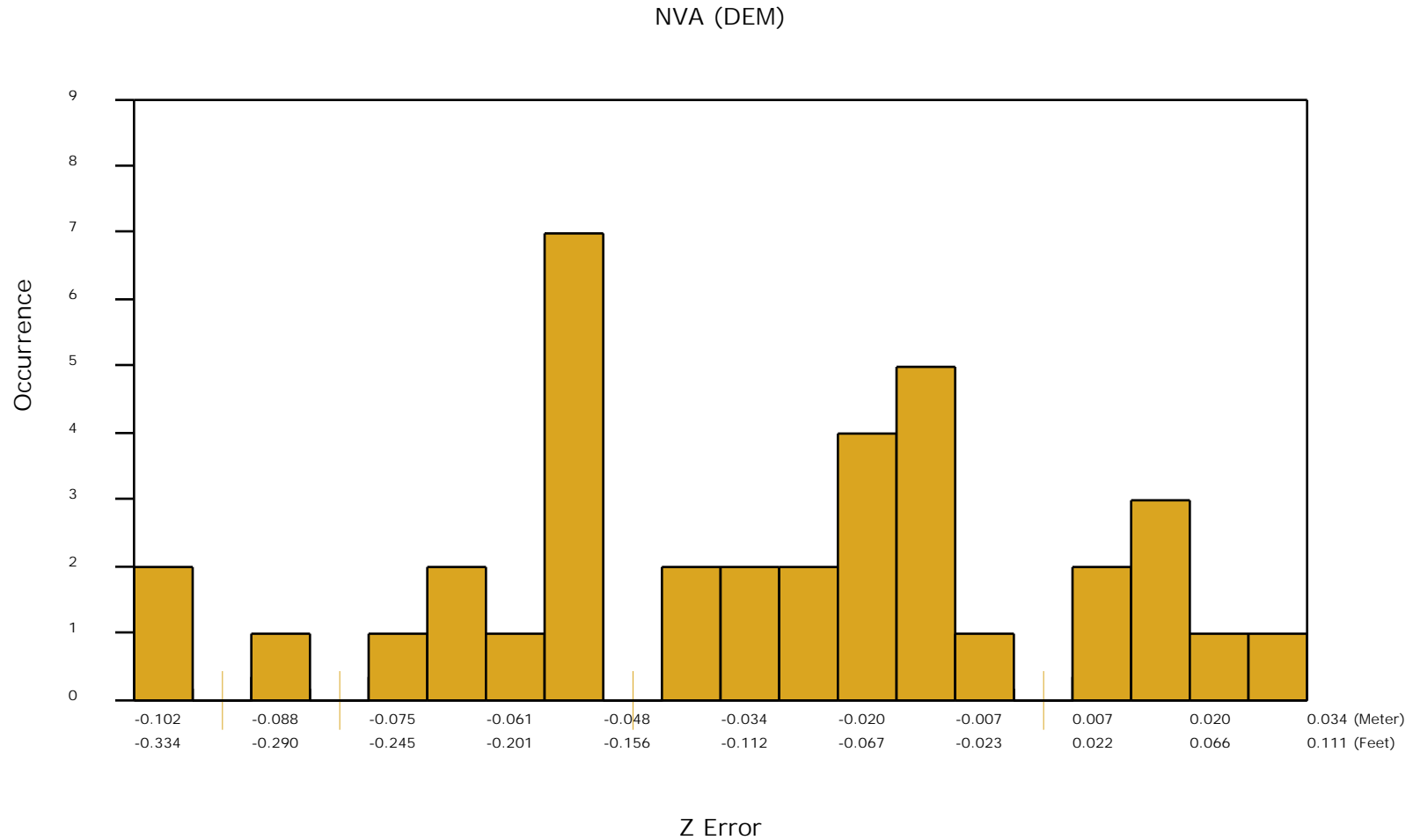
Check Points Vertical Accuracy - continued

ID	X	Y	Coverage	Z	Z From Lidar	Z Error	Description	Comments
2211	463350.504	5277801.755	Yes	425.743	425.712	-0.031		
2215	487608.077	5302842.964	Yes	412.844	412.742	-0.102		
2220	371135.625	5295841.03	Yes	382.792	382.709	-0.083		
2229	335582.873	5292098.901	Yes	394.633	394.606	-0.027		
2229A	340399.785	5291849.923	Yes	406.863	406.880	0.017		
2232	402599.751	5271084.375	Yes	399.006	398.995	-0.011		
2251	383837.963	5276291.998	Yes	408.809	408.831	0.022		

DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to show a frequency distribution chart of the non-vegetated vertical accuracy (NVA) of the DEM data measured against surveyed ground check points.

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DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to report the results of measuring the DEM data against surveyed ground VVA (vegetated vertical accuracy) check points. All XY coordinates and Z values reported are in the selected data units.

VVA (DEM)

ID	X	Y	Coverage	Z	Z From Lidar	Z Error	Description	Comments
2224	363903.269	5301345.132	Yes	379.22	379.161	-0.059		
3006	481080.38	5294602.191	Yes	429.111	429.152	0.041		
3008	441903.067	5295893.734	Yes	420.179	420.194	0.015		
3048	335800.934	5274247.901	Yes	433.034	433.139	0.105		
3054	414576.299	5275761.332	Yes	405.49	405.500	0.010		
3057	353282.514	5274651.663	Yes	424.601	424.571	-0.030		
3067	370865.858	5283562.68	Yes	428.993	428.968	-0.025		
3068	453360.072	5304015.113	Yes	403.162	403.147	-0.015		
3085	425650.504	5296511.491	Yes	418.309	418.349	0.040		
3087A	392436.01	5303439.419	Yes	413.874	413.885	0.011		
3094	405123.455	5286433.618	Yes	421.326	421.437	0.111		
3097	472335.396	5295225.411	Yes	424.16	424.144	-0.016		
3120	350113.546	5291577.874	Yes	411.075	411.244	0.169		
3120A	349170.756	5294827.147	Yes	409.05	409.131	0.081		
3145	450801.131	5288895.062	Yes	402.775	402.826	0.051		
3146	422018.669	5286922.342	Yes	411.66	411.595	-0.065		
3147	392697.577	5293580.142	Yes	425.132	425.099	-0.033		
3151	442199.907	5282117.393	Yes	430.673	430.743	0.070		
3167	493226.867	5291677.379	Yes	395.142	395.072	-0.070		
3168	389014.796	5287349.347	Yes	432.842	432.895	0.053		
3171	491927.278	5302765.913	Yes	410.753	410.813	0.060		
3172	463367.802	5277811.955	Yes	424.971	425.048	0.077		
3175	371192.39	5296515.808	Yes	389.462	389.477	0.015		
3177	403633.048	5271005.933	Yes	399.569	399.649	0.080		

DPH-11 Report on Absolute Vertical Accuracy - continued

The purpose of this section is to show a frequency distribution chart of the vegetated vertical accuracy (VVA) of the DEM data measured against surveyed ground check points.

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