Location	Client	Lab	Lab Sample ID	Sample Date	Solid/Soil Source (Equipment) [Vault/Sump, Separator, Tank Battery, Dump Line, Pit, Cuttings, Background, etc.]	Qualifier(from lab report)	Sample ID	Alkalinity (mg/L)	Alkalinity,Bicarbonate (mg/L)	Alkalinity,Carbonate (mg/L)	Dissolved Solids (mg/L)	Suspended Solids (mg/L)	Calcium (mg/L)	Magnesium	Potassium (mg/L)	Sodium (mg/L)	TPH (GC/FID) High Fraction (mg/L)	TPH (GC/FID) Low Fraction (mg/L)	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Ethane (mg/L)	Ethene (mg/L)	Methane (mg/L)
Buck Peak	Peakview	Pace	L1780655-01	9/19/2024	Bradenhead	J: Magnesium; Potassium; Ethylbenzene; Total Xylenes (The identification of the analyte is acceptable; the reported value is an estimate.)	BUCK PEAK 1-16 (INT)	NA	606	200	865	NA	1.94	0.490	1.90	332	1.37	0.392	0.00147	0.000704	0.00225	0.00305	<10.0	<50.0	0.0152	<0.0130	5.81
Buck Peak	Peakview	Pace	L1780655-02	9/19/2024	Bradenhead	J: Magnesium; Potassium; Ethylbenzene; Total Xylenes (The identification of the analyte is acceptable; the reported value is an estimate.)	BUCK PEAK 1-16 (FINAL)	NA	550	246	827	NA	1.62	0.347	1.44	334	0.250	0.278	0.00122	0.000235	0.00132	0.000998	<10.0	<50.0	0.0199	<0.0130	7.16
Kowach	Peakview	Pace	L1780977-01	9/19/2024	Kowach Wellhead		STATE 1-16 INJECTION WATER	249	249	U	≥ 42520 *		1320	147	69.2	13900		530					27300	U			

*CALCULATED

The bradenhead samples (both initial and final) show relatively low Total Dissolved Solids (TDS) 865 mg/l - 827 mgl, which classifies this water as fresh per general groundwater standards. However, despite being low in TDS, these samples contain minor hydrocarbon indicators (e.g., TPH and trace volatile organics like benzene, toluene, and xylenes), as well as elevated sulfate levels. This suggests the water is not suitable for potable use without treatment, fitting the “fresh but non-potable” category often encountered in oilfield environments.

In contrast, the Koach 1-9 wellhead - injection water sample exhibits a TDS concentration ≥ 42,520 mg/L—exceeding typical brine thresholds by an order of magnitude—alongside highly elevated chloride and sodium concentrations (27,300 mg/L and 13,900 mg/L, respectively). This reflects a saline formation water signature typical of deep basin fluids.

The stark contrast in TDS and major ions between bradenhead and wellhead water supports the conclusion that the bradenhead samples represent a shallow, relatively fresh interval, while the wellhead sample reflects a deep, highly saline source.