



### INTRODUCTION

New geochemical data from re-analysis of archived stream sediment samples have been assessed using weighted sums modeling and catchment basin analysis as described in the methodology report that accompanies this map (Mackie *et al.*, 2015). Both commodity and pathfinder element abundances are evaluated to highlight areas that show geochemical responses consistent with a variety of base and precious-metal mineral deposit types. The results of modeling, completed using two approaches, are presented as a series of catchment maps and associated data files. This release is part of a regional assessment of stream sediment geochemistry that covers a large part of Yukon.

### SAMPLING AND ANALYSIS PROGRAMS

Stream sediment and water samples from the Stewart River area (NTS 1150 and part of 115N) were collected at a reconnaissance scale in 1986 as part of the Canada-Yukon Mineral Development Agreement (Friske *et al.*, 2001). Field descriptions and initial geochemical data for 1382 sites were released in Geological Survey of Canada (GSC) Open File 1364 and Indian and Northern Affairs Canada, Exploration / Geological Services Division Open File 2001-130. New geochemical data from the re-analysis of archive sample material were released in Yukon Geological Survey (YGS) Open File 2016-4 (Jackman, 2016). The reader is referred to these reports for detailed descriptions of sampling techniques, analytical procedures, and quality control measures.

### MINERAL OCCURRENCES

A variety of types of base and precious-metal mineralization have been identified in the Stewart River Area as listed in Table 1 (Yukon MINFILE, 2015). The most significant deposits are classified as orogenic Au (Golden Saddle deposit and O.V. prospect), polymetallic Ag-Pb-Zn (Connaught and Lerner deposits), intrusion-related Au (Moosehorn deposit and Flume prospect), quartz-vein hosted Au (Lone Star and Violet deposits, and Eureka prospect) and Cu-Zn-Pb volcanogenic massive sulphide (Toulary prospect). The Casino Cu-Mo-Au porphyry deposit and Coffee orogenic Au deposit occur in the adjacent map area to the south supporting the prospectivity of the region for these deposit types.

### WEIGHTED SUMS MODELING

As described in the methodology report (Mackie *et al.*, 2015), two approaches have been used to subdue the influence of background lithological variation and secondary absorption on the composition of stream sediments. One uses data levelled by the dominant geology mapped within each catchment, while the other uses residuals calculated from regression against selected principal components. Weighted sums models (WSM) have been generated using the processed data.

Table 1: List of Mineral Occurrences for NTS map sheet 115N and 115O (Yukon MINFILE, 2015)

Number	Name	Type	Status	Commodities
115N 019	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 020	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 021	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 022	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 023	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 024	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 025	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 026	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 027	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 028	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 029	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 030	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 031	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 032	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 033	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 034	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 035	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 036	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 037	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 038	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 039	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 040	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 041	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 042	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 043	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 044	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 045	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 046	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 047	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 048	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 049	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 050	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 051	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 052	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 053	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 054	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 055	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 056	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 057	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 058	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 059	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 060	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 061	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 062	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 063	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 064	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 065	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 066	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 067	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 068	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 069	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 070	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 071	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 072	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 073	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 074	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 075	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 076	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 077	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 078	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 079	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 080	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 081	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 082	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 083	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 084	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 085	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 086	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 087	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 088	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 089	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 090	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 091	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 092	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 093	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 094	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 095	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 096	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 097	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 098	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 099	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 100	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 101	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 102	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 103	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 104	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 105	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 106	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 107	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 108	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 109	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 110	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 111	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 112	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 113	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 114	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 115	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 116	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 117	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 118	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 119	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 120	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 121	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 122	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 123	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 124	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 125	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 126	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 127	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 128	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 129	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 130	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 131	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 132	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 133	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 134	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 135	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 136	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 137	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 138	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 139	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 140	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 141	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 142	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 143	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 144	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 145	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 146	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 147	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 148	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 149	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 150	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 151	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 152	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 153	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 154	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 155	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 156	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 157	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 158	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 159	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 160	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 161	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 162	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 163	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 164	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 165	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 166	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 167	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 168	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 169	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 170	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 171	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 172	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 173	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 174	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 175	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 176	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 177	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 178	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 179	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 180	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 181	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 182	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 183	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 184	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 185	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 186	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 187	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 188	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 189	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 190	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 191	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 192	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 193	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 194	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 195	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 196	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 197	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 198	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 199	ALBERT	Unknown	Showing	Copper, Gold, Silver
115N 200	ALBERT	Unknown	Showing	Copper, Gold, Silver

Table 2: List of Mineral Occurrences for NTS map sheet 115N and 115O (Yukon MINFILE, 2015)

Number	Name	Type	Status	Commodities
115N 042	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 043	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 044	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 045	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 046	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 047	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 048	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 049	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 050	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 051	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 052	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, Molybdenum
115N 053	BUTLER	Porphyry Cu-Mo-Au	Showing	Copper, Gold, Silver, M