Sample # Formation Age Location Lat/Long Date/Description Local in section Analyses

CO13-RT-JeA1 Entrada Jurassic Ribbon Trail N38° 0.690 W108° 37.153’ April 7, 2013 fine grained well rounded calcite cemented well sorted half quartz half heavy mineral .5m

CO13-RT-JeA2 Entrada Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 well sorted well rounded fine grained 3m

CO13-RT-JwA1 Wanakah Fm Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 siltstone 4.0m WRA

CO13-RT-JwA2 Wanakah Fm Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 shale 4.1m WRA

CO13-RT-JwA3 Wanakah Fm Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 black shale 4.55m WRA

CO13-RT-JwA4 Wanakah Fm Jurassic Ribbon Trail N38° 0.690 W108° 37.153’ April 7, 2013 interbedded green and red shale 4.75m

CO13-RT-JwA7 Wanakah Fm Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 intercalated siltstone/shale. Jasper precipitated on top of siltstone 6.0m WRA

CO13-RT-JwA8 Wanakah Fm Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Ash 6.05m

CO13-RT-JwA5 Wanakah Fm Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 green paleosol 8.25m WRA

CO13-RT-JwA6 Wanakah Fm Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 planar bedded shale green at bottom gradually turn to red reduction halos around root traces at top. Slickensides throughout 9.9m WRA

CO13-RT-JmA1 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 fine grained moderately well sorted calcite cemented mostly quartz planar bedding 10.0m

CO13-RT-JmtA2 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 planar bedded red shale with some loading deformation at top 11.2m

CO13-RT-JmtA3 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 massive ss 11.65m

CO13-RT-JmtB1 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 sample near top. White gray sandstone medium grained quartz rich calcite cemented 11.65m

CO13-RT-JmtB2 Tidwell Member Jurassic RIbbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Gray micrite 11.75-11.79m

CO13-RT-JmtB3 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Gray nodular micrite with clay veneer 11.95-12.01m

CO13-RT-JmtB4 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 12.26m

CO13-RT-JmtB5 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Gray very fine grained sandstone interbedding of limey siltstone and mudstone unit capped with limestone bed 13.0m

CO13-RT-JmtB6 Tidwell Memebr Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Reddish calcareous shale with 1.5cm thick light gray very fine sandstone with chert grains 13.42m

CO13-RT-JmtB7 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Gray limey-siltstone interbedded from within mudstone 13.87m

CO13-RT-JmtB8 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Gray micrite 15.01m

CO13-RT-JmtB9 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Carbonate module 15.65m

CO13-RT-JmtB10 Tidwell Member Jurassic Ribbon Trail N38° 0.690 W108° 37.153’ April 7, 2013 Gray sandstone 17.01m

CO13-RT-JmtC1 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Gay micritic siltstone 19.75m

CO13-RT-JmtC2 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Dark gray very fine grained microbial limestone 20.25m

CO13-RT-JmtC3 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Gray silty mudstone thinly bedded to laminated 20.50m

CO13-RT-JmtC4 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Purple reddish silty mudstone mottled laminated calcareous bedding 22.0-22.5m

CO13-RT-JmtC5 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Green muddy siltstone laminated no CaCO3 22.5-22.6

CO13-RT-JmtC6 & CO13-RT-JmtC7 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Purple green laminated silty mudstone carbonate rich nodules 1-3mm paleosol features and slickensides 22.6-23.4m

CO13-RT-JmtC8 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Green-gray mudstone laminated bedding micritic bedding 25.0m

CO13-RT-JmtC9 Tidwell Member Jurassic Ribbon Trail N38° 0.690’ W108° 37.153’ April 7, 2013 Fine grained limestone interbedding, green laminated mudstone purple laminated mudstone 25.5m