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Appendix B.1
Supporting Data for Earth Resources
(Geological Hazards, Soils,
Minerals, and Paleontology)

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2 This appendix could not be made fully Section 508 compliant. For help with any of its content, please contact the Bureau of Land
3 Management, Vale District Office, at 541-473-3144. Please reference Appendix B.1 of the December 2014 *Draft Environmental Impact*
4 *Statement and Land Use Plan Amendments for the Boardman to Hemingway Transmission Line Project.*

1 **Table B.1-1. Mining Activities Observed from Aerial Reconnaissance Photographs**
 2 **and Topographic Maps (within 1,000 Feet of the Centerline)**

Route Name (County, State)	Milepost	Feature Type	Mineral Product	Location from Centerline
Proposed Action (Morrow County, Oregon)	0.2	Surface disturbance area	Unknown	Crosses
Proposed Action (Morrow County, Oregon)	8.9	Surface disturbance area	Unknown	Crosses
Horn Butte Alternative (Morrow County, Oregon)	8.9	Surface disturbance area	Unknown	Crosses
Longhorn Alternative (Morrow County, Oregon)	6.1-8.6	Oil/Gas Leases	Oil/Gas	Crosses
Longhorn Alternative (Morrow County, Oregon)	12.0-12.5	Oil/Gas Leases	Oil/Gas	Crosses
Longhorn Variation (Morrow County, Oregon)	4.9	Oil/gas leases	Oil/gas	Crosses
Longhorn Variation (Morrow County, Oregon)	12.1	Surface disturbance area	Unknown	40 feet east
Proposed Action (Union County, Oregon)	125.8–125.9	Gravel pit	Gravel	Crosses
Timber Canyon Alternative (Union County, Oregon)	9.8–9.9	Surface disturbance area	Sand and gravel	989 feet north
Proposed Action (Baker County, Oregon)	135.7–135.8	Prospects, historic	Gold, copper, silver	260 feet west
Proposed Action (Baker County, Oregon)	144.5–144.7	Gravel pit	Gravel	537 feet west
Proposed Action (Baker County, Oregon)	154.8–155.4	Mining claims	Gold, silver	Crosses
Proposed Action (Baker County, Oregon)	155.8–156.3	Prospects, historic	Gold, silver	Crosses
Proposed Action (Baker County, Oregon)	157.4–157.7	Mining claims	Not listed	Crosses
Proposed Action (Baker County, Oregon)	157.9–159.5	Mining claims	Gold, silver	923 feet east
Proposed Action (Baker County, Oregon)	185.6–186.7	Gravel pit	Not listed	1,000 feet west
Proposed Action (Baker County, Oregon)	189.8–190	Placer	Gold	492 feet east
Proposed 138/69-kV Rebuild (Baker County, Oregon)	2.8	Placer	Gold, silver	545 feet northeast
Proposed 138/69-kV Rebuild (Baker County, Oregon)	3	Placer	Gold, silver	313 feet east
Proposed 138/69-kV Rebuild (Baker County, Oregon)	2.5–2.8	Placer	Gold, silver	185 feet northeast

Route Name (County, State)	Milepost	Feature Type	Mineral Product	Location from Centerline
Proposed 138/69-kV Rebuild (Baker County, Oregon)	3.5–3.7	Placer	Gold	870 feet west
Flagstaff Alternative, including 230-kV Rebuild (Baker County, Oregon)	0.6	Prospect	Gold, silver	545 feet east
Flagstaff Alternative, including 230-kV Rebuild (Baker County, Oregon)	4.7	Gravel pit/gold-silver prospect	Sand, gravel/gold, silver	30 feet east
Flagstaff Alternative, including 230-kV Rebuild (Baker County, Oregon)	4.8	Prospect	Gold, silver	850 feet east
Flagstaff Alternative, including 230-kV Rebuild (Baker County, Oregon)	11	Gravel pit	Gravel	823 feet southwest
Flagstaff Alternative, including 230-kV Rebuild (Baker County, Oregon)	1.0–1.2	Gravel pit	Gravel	156 feet east
Flagstaff Alternative, including 230-kV Rebuild (Baker County, Oregon)	12.4–12.6	Gravel pit	Gravel	305 feet north
Flagstaff Alternative, including 230-kV Rebuild (Baker County, Oregon)	4.7–5.1	Gravel pit	Sand, gravel	Crosses
Flagstaff Alternative, including 230-kV Rebuild (Baker County, Oregon)	5.5–5.7	Mining claim	Antimony, gold	Crosses
Timber Canyon Alternative (Baker County, Oregon)	40.3	Surface disturbance area	Sand and gravel	272 feet east
Timber Canyon Alternative (Baker County, Oregon)	49.9	Surface disturbance area	Gold vein underground	789 feet southeast
Timber Canyon Alternative (Baker County, Oregon)	31.1–31.4	Underground mines, prospects	Gold	Crosses
Timber Canyon Alternative (Baker County, Oregon)	32.2–32.4	Underground mine, prospect	Gold	821 feet east
Timber Canyon Alternative (Baker County, Oregon)	32.5–32.7	Underground mine	Gold	211 feet east
Timber Canyon Alternative (Baker County, Oregon)	40.3–40.4	Surface disturbance area	Sand and gravel	922 feet west
Timber Canyon Alternative (Baker County, Oregon)	46.1–46.7	Surface disturbance area	Manganese, gold	Crosses
Timber Canyon Alternative (Baker County, Oregon)	50.3–50.6	Surface disturbance area	Gold vein underground	833 feet east

Route Name (County, State)	Milepost	Feature Type	Mineral Product	Location from Centerline
Proposed Action (Malheur County, Oregon)	242	Geothermal well	Geothermal	333 feet northeast
Proposed Action (Malheur County, Oregon)	265.6	Gravel pit	Gravel	Crosses
Proposed Action (Malheur County, Oregon)	204.4–205.5	Mining claims	Not listed	Crosses
Proposed Action (Malheur County, Oregon)	214.5–214.9	Gravel pit	Gravel	924 feet east
Proposed Action (Malheur County, Oregon)	227.9–230.7	Mining claims	Gold, mercury	Crosses
Proposed Action (Malheur County, Oregon)	270.2–270.8	Mining claim	Not listed (likely agate)	89 feet east
Proposed Action (Malheur County, Oregon)	274.4–275.9	Mining claim	Not listed (likely agate)	Crosses
Malheur A Alternative (Malheur County, Oregon)	31.4	Surface disturbance area	Sand and gravel	Crosses
Malheur A Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	782 feet north
Malheur A Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	728 feet north
Malheur A Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	Crosses
Malheur A Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	Crosses
Malheur A Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	Crosses
Malheur A Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	Crosses
Malheur A Alternative (Malheur County, Oregon)	16–16.5	Mining claims	Gold	Crosses
Malheur A Alternative (Malheur County, Oregon)	16–16.5	Mining claims	Gold	525 feet east
Malheur A Alternative (Malheur County, Oregon)	16–17	Mining claims	Gold	Crosses
Malheur A Alternative (Malheur County, Oregon)	17.8–18.3	Mining claims	Gold	900 feet southwest
Malheur A Alternative (Malheur County, Oregon)	17.8–18.3	Mining claims	Gold	900 feet southwest
Malheur A Alternative (Malheur County, Oregon)	17.8–18.3	Mining claims	Gold	900 feet southwest
Malheur A Alternative (Malheur County, Oregon)	17.8–18.3	Mining claims	Gold	900 feet southwest

Route Name (County, State)	Milepost	Feature Type	Mineral Product	Location from Centerline
Malheur A Alternative (Malheur County, Oregon)	30.1–30.7	Mining claims	Not listed (possibly bentonite)	592 feet south
Malheur A Alternative (Malheur County, Oregon)	30.1–30.7	Mining claims	Not listed (possibly bentonite)	Crosses
Malheur A Alternative (Malheur County, Oregon)	30.7–31	Mining claims	Not listed (possibly bentonite)	Crosses
Malheur A Alternative (Malheur County, Oregon)	31.3–31.8	Mining claims	Not listed (possibly bentonite)	Crosses
Malheur A Alternative (Malheur County, Oregon)	31–31.3	Mining claims	Not listed (possibly bentonite)	Crosses
Malheur A Alternative (Malheur County, Oregon)	31.3–31.8	Mining claims	Not listed (possibly bentonite)	642 feet south
Malheur S Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	782 feet north
Malheur S Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	728 feet north
Malheur S Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	Crosses
Malheur S Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	Crosses
Malheur S Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	Crosses
Malheur S Alternative (Malheur County, Oregon)	16.5–17	Mining claims	Gold	Crosses
Malheur S Alternative (Malheur County, Oregon)	16–16.5	Mining claims	Gold	Crosses
Malheur S Alternative (Malheur County, Oregon)	16–16.5	Mining claims	Gold	525 feet east
Malheur S Alternative (Malheur County, Oregon)	16–17	Mining claims	Gold	Crosses
Malheur S Alternative (Malheur County, Oregon)	17.8–18.3	Mining claims	Gold	900 feet southwest
Malheur S Alternative (Malheur County, Oregon)	17.8–18.3	Mining claims	Gold	900 feet southwest
Malheur S Alternative (Malheur County, Oregon)	17.8–18.3	Mining claims	Gold	900 feet southwest
Malheur S Alternative (Malheur County, Oregon)	17.8–18.3	Mining claims	Gold	900 feet southwest
Malheur S Alternative (Malheur County, Oregon)	270.2–270.8	Mining claim	Not listed (likely agate)	89 feet east
Malheur S Alternative (Malheur County, Oregon)	30.7–31.4	Mining claims	Not listed (possibly bentonite)	616 feet south

Route Name (County, State)	Milepost	Feature Type	Mineral Product	Location from Centerline
Proposed Action (Owyhee County, Idaho)	275.9	Mining claim	Not listed (likely agate)	Crosses
Proposed Action (Owyhee County, Idaho)	278.2–278.7	Surface disturbance area	Mercury	480 feet northeast
Proposed Action (Owyhee County, Idaho)	279.2–279.7	Quarry	Specialty stone	150 feet northeast
Proposed Action (Owyhee County, Idaho)	280.2–280.6	Surface disturbance area	565—stone, specialty	856 feet northwest
Proposed Action (Owyhee County, Idaho)	288.8–289.6	Prospect	Not listed	743 feet southwest
Proposed Action (Owyhee County, Idaho)	290.8–290.9	Prospect	Not listed	483 feet northwest
Proposed Action (Owyhee County, Idaho)	291.5–292	Prospect	Bentonite, opals	75 feet northwest
Proposed Action (Owyhee County, Idaho)	291.7–292	Mining claim	Not listed	Crosses
Proposed Action (Owyhee County, Idaho)	293.3–293.4	Gravel pit	Gravel	269 feet southwest
Proposed Action (Owyhee County, Idaho)	293.6–293.7	Mining claim	Not listed (likely thundereggs)	Crosses

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Table B.1-2 Fossil Sensitivities by Proposed Action and Alternatives

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Morrow	45.82	Missoula Flood deposits	8.10	3	24.30
Proposed Action	Morrow	45.82	Pomona basalt	0.22	2	0.44
Proposed Action	Morrow	45.82	Alluvium	2.52	3	7.56
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.15	2	0.30
Proposed Action	Morrow	45.82	Pomona basalt	0.12	2	0.25
Proposed Action	Morrow	45.82	Elephant Mountain member	0.07	2	0.14
Proposed Action	Morrow	45.82	Missoula Flood deposits	2.73	3	8.20
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.02	2	0.04
Proposed Action	Morrow	45.82	Missoula Flood deposits	1.87	3	5.60
Proposed Action	Morrow	45.82	Alluvium	0.10	3	0.30
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.06	2	0.12
Proposed Action	Morrow	45.82	Missoula Flood deposits	2.15	3	6.44
Proposed Action	Morrow	45.82	Alluvium	0.09	3	0.26
Proposed Action	Morrow	45.82	Missoula Flood deposits	2.30	3	6.90
Proposed Action	Morrow	45.82	Alkali Canyon Formation	1.32	5	6.62
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.05	2	0.10
Proposed Action	Morrow	45.82	Alkali Canyon Formation	1.77	5	8.84
Proposed Action	Morrow	45.82	Missoula Flood deposits	0.79	3	2.38
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.07	2	0.15
Proposed Action	Morrow	45.82	Missoula Flood deposits	0.85	3	2.55
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.04	2	0.09
Proposed Action	Morrow	45.82	Alluvium	0.13	3	0.40
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.12	2	0.24
Proposed Action	Morrow	45.82	Alkali Canyon Formation	0.36	5	1.82
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.18	2	0.35
Proposed Action	Morrow	45.82	Alluvium	0.14	3	0.41
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.21	2	0.41
Proposed Action	Morrow	45.82	Missoula Flood deposits	1.90	3	5.69
Proposed Action	Morrow	45.82	Alluvial fan deposits	4.67	3	14.00
Proposed Action	Morrow	45.82	Alluvium	0.18	3	0.55
Proposed Action	Morrow	45.82	Alkali Canyon Formation	0.25	5	1.23
Proposed Action	Morrow	45.82	Alluvium	0.10	3	0.31
Proposed Action	Morrow	45.82	Alkali Canyon Formation	4.34	5	21.70
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.05	2	0.10

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Morrow	45.82	Alkali Canyon Formation	0.01	5	0.06
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.29	2	0.58
Proposed Action	Morrow	45.82	Alluvium	0.22	3	0.65
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	2.99	2	5.98
Proposed Action	Morrow	45.82	N2 magnetostratigraphic unit	0.15	2	0.30
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.59	2	1.17
Proposed Action	Morrow	45.82	N2 magnetostratigraphic unit	0.11	2	0.23
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.41	2	0.82
Proposed Action	Morrow	45.82	N2 magnetostratigraphic unit	0.03	2	0.06
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	1.89	2	3.78
Proposed Action	Morrow	45.82	N2 magnetostratigraphic unit	0.15	2	0.31
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.19	2	0.37
Proposed Action	Morrow	45.82	N2 magnetostratigraphic unit	0.06	2	0.13
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.19	2	0.37
Proposed Action	Morrow	45.82	N2 magnetostratigraphic unit	0.15	2	0.31
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.21	2	0.42
Proposed Action	Morrow	45.82	N2 magnetostratigraphic unit	0.04	2	0.08
Proposed Action	Morrow	45.82	Undifferentiated Frenchman Springs flows	0.12	2	0.23
Paleontological Sensitivity Ranking					2.67	144.63
Proposed Action	Umatilla	49.46	Alluvium	0.16	3	0.47
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	0.44	2	0.87
Proposed Action	Umatilla	49.46	Alkali Canyon Formation	0.75	5	3.73
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	1.66	2	3.31
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	0.24	2	0.48
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	0.18	2	0.36
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	1.56	2	3.13
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	0.14	2	0.29
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	1.33	2	2.65
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	0.14	2	0.28
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	1.12	2	2.23
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	7.27	2	14.55
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	0.12	2	0.24
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	1.88	2	3.77
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	0.23	2	0.46
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	1.49	2	2.98

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	0.69	2	1.37
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	0.61	2	1.21
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	0.60	2	1.20
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	1.37	2	2.74
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	1.34	2	2.68
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	1.41	2	2.81
Proposed Action	Umatilla	49.46	McKay Formation	1.29	5	6.46
Proposed Action	Umatilla	49.46	Basalt of Sand Hollow	0.03	2	0.07
Proposed Action	Umatilla	49.46	Alluvium	0.18	3	0.54
Proposed Action	Umatilla	49.46	Basalt of Sentinel Gap	0.04	2	0.08
Proposed Action	Umatilla	49.46	Basalt of Sand Hollow	0.27	2	0.53
Proposed Action	Umatilla	49.46	McKay Formation	0.38	5	1.89
Proposed Action	Umatilla	49.46	Basalt of Sentinel Gap	0.00	2	0.00
Proposed Action	Umatilla	49.46	McKay Formation	2.02	5	10.12
Proposed Action	Umatilla	49.46	Basalt of Sand Hollow	0.02	2	0.04
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	2.92	2	5.85
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	3.26	2	6.51
Proposed Action	Umatilla	49.46	R2 magnetostratigraphic unit	0.78	2	1.57
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	0.66	2	1.32
Proposed Action	Umatilla	49.46	R2 magnetostratigraphic unit	0.57	2	1.14
Proposed Action	Umatilla	49.46	Alluvium	0.11	3	0.34
Proposed Action	Umatilla	49.46	R2 magnetostratigraphic unit	0.51	2	1.02
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	0.82	2	1.64
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	0.61	2	1.23
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	0.24	2	0.48
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	0.07	2	0.15
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	1.83	2	3.66
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	0.19	2	0.37
Proposed Action	Umatilla	49.46	Undifferentiated Frenchman Springs flows	3.02	2	6.04
Proposed Action	Umatilla	49.46	N2 magnetostratigraphic unit	4.15	2	8.31
Proposed Action	Umatilla	49.46	N2 Grande Ronde Basalt	0.75	2	1.51
Paleontological Sensitivity Ranking					2.32	112.68
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.24	2	0.49
Proposed Action	Union	39.45	N2 magnetostratigraphic unit	0.12	2	0.23
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	2.20	2	4.40

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Union	39.45	R2 Grande Ronde Basalt	0.82	2	1.64
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.06	2	0.12
Proposed Action	Union	39.45	R2 Grande Ronde Basalt	0.18	2	0.37
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.26	2	0.53
Proposed Action	Union	39.45	R2 Grande Ronde Basalt	0.05	2	0.11
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.11	2	0.22
Proposed Action	Union	39.45	R2 Grande Ronde Basalt	0.05	2	0.11
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.32	2	0.64
Proposed Action	Union	39.45	R2 Grande Ronde Basalt	0.04	2	0.08
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	1.99	2	3.99
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.96	1	0.96
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	3.78	2	7.56
Proposed Action	Union	39.45	R2 Grande Ronde Basalt	0.12	2	0.24
Proposed Action	Union	39.45	Alluvium	0.09	3	0.26
Proposed Action	Union	39.45	R2 Grande Ronde Basalt	0.03	2	0.07
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.75	2	1.51
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.77	1	0.77
Proposed Action	Union	39.45	Basalt of Little Catherine Creek	0.16	2	0.32
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.28	1	0.28
Proposed Action	Union	39.45	Basalt of Little Catherine Creek	0.11	2	0.22
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.25	1	0.25
Proposed Action	Union	39.45	Alluvium	0.14	3	0.42
Proposed Action	Union	39.45	Landslide deposits	0.23	2	0.46
Proposed Action	Union	39.45	Basalt of Little Catherine Creek	0.05	2	0.10
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.01	2	0.02
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.30	1	0.30
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.07	2	0.13
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.19	1	0.19
Proposed Action	Union	39.45	Basalt of Little Catherine Creek	0.48	2	0.96
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	1.88	1	1.88
Proposed Action	Union	39.45	Basalt of Little Catherine Creek	0.17	2	0.34
Proposed Action	Union	39.45	Andesite and basaltic andesite	7.75	2	15.50
Proposed Action	Union	39.45	Basalt of Little Catherine Creek	0.05	2	0.11
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.20	1	0.20
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.30	2	0.60

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Union	39.45	R2 Grande Ronde Basalt	0.39	2	0.78
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.56	2	1.12
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.01	1	0.01
Proposed Action	Union	39.45	Dacite	0.77	1	0.77
Proposed Action	Union	39.45	Landslide deposits	0.09	2	0.17
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	1.19	1	1.19
Proposed Action	Union	39.45	Basalt of Little Catherine Creek	0.07	2	0.14
Proposed Action	Union	39.45	N2 Grande Ronde Basalt	0.05	2	0.09
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.31	1	0.31
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.08	1	0.08
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.02	1	0.02
Proposed Action	Union	39.45	Landslide deposits	0.07	2	0.14
Proposed Action	Union	39.45	Ferroandesite of Fiddlers Hell	0.22	1	0.22
Proposed Action	Union	39.45	Landslide deposits	0.82	2	1.63
Proposed Action	Union	39.45	Undifferentiated andesite and dacite	0.58	1	0.58
Proposed Action	Union	39.45	Undifferentiated surficial deposits	1.34	3	4.02
Proposed Action	Union	39.45	Undifferentiated andesite and dacite	0.70	1	0.70
Proposed Action	Union	39.45	Olivine basalt sheet flows	2.70	2	5.39
Proposed Action	Union	39.45	Alluvium	0.18	3	0.55
Proposed Action	Union	39.45	Basalt	0.99	2	1.98
Proposed Action	Union	39.45	Olivine basalt sheet flows	0.53	2	1.06
Proposed Action	Union	39.45	Volcanic and metavolcanic rocks	0.35	2	0.69
Proposed Action	Union	39.45	Clover Creek Greenstone	0.10	3	0.29
Proposed Action	Union	39.45	Basalt of Little Catherine Creek	0.27	2	0.55
Proposed Action	Union	39.45	Clover Creek Greenstone	0.98	3	2.95
Proposed Action	Union	39.45	Volcanic and metavolcanic rocks	0.51	2	1.03
Paleontological Sensitivity Ranking					1.83	73.01
Proposed Action	Baker	69.14	Volcanic and metavolcanic rocks	4.16	2	8.31
Proposed Action	Baker	69.14	Volcanic and sedimentary rocks	0.59	3	1.78
Proposed Action	Baker	69.14	Alluvium	1.18	3	3.53
Proposed Action	Baker	69.14	Volcanic and sedimentary rocks	0.21	3	0.63
Proposed Action	Baker	69.14	Andesite flows and domes	0.87	1	0.87
Proposed Action	Baker	69.14	Volcanic and sedimentary rocks	0.66	3	1.98
Proposed Action	Baker	69.14	Pre-upper Triassic intrusive complex	0.91	1	0.91
Proposed Action	Baker	69.14	Olivine basalt sheet flows	0.44	2	0.88

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Baker	69.14	Pre-upper Triassic intrusive complex	0.13	1	0.13
Proposed Action	Baker	69.14	Andesite	0.98	1	0.98
Proposed Action	Baker	69.14	Olivine basalt sheet flows	2.12	2	4.24
Proposed Action	Baker	69.14	Alluvium	1.13	3	3.39
Proposed Action	Baker	69.14	Olivine basalt sheet flows	5.46	2	10.91
Proposed Action	Baker	69.14	Mafic intrusive rocks	1.16	1	1.16
Proposed Action	Baker	69.14	Tuffaceous sedimentary rocks	0.75	4	3.02
Proposed Action	Baker	69.14	Mafic intrusive rocks	0.91	1	0.91
Proposed Action	Baker	69.14	Olivine basalt sheet flows	1.31	2	2.62
Proposed Action	Baker	69.14	Mafic intrusive rocks	0.82	1	0.82
Proposed Action	Baker	69.14	Olivine basalt sheet flows	0.63	2	1.26
Proposed Action	Baker	69.14	Basalt	0.40	2	0.81
Proposed Action	Baker	69.14	Elkhorn Ridge Argillite	0.76	3	2.28
Proposed Action	Baker	69.14	Basalt	0.26	2	0.52
Proposed Action	Baker	69.14	Tuffaceous sedimentary rocks	3.86	4	15.42
Proposed Action	Baker	69.14	Elkhorn Ridge Argillite	2.15	3	6.45
Proposed Action	Baker	69.14	Silicic welded and non-welded tuff	0.22	2	0.44
Proposed Action	Baker	69.14	Pre-Tertiary rocks, undivided	4.74	3	14.22
Proposed Action	Baker	69.14	Tuffaceous sedimentary rocks	2.44	4	9.76
Proposed Action	Baker	69.14	Lake and stream deposits	0.79	4	3.14
Proposed Action	Baker	69.14	Alluvium and colluvium	0.22	3	0.67
Proposed Action	Baker	69.14	Lake and stream deposits	1.63	4	6.53
Proposed Action	Baker	69.14	Alluvium and colluvium	0.39	3	1.17
Proposed Action	Baker	69.14	Lake and stream deposits	1.15	4	4.60
Proposed Action	Baker	69.14	Alluvium and colluvium	0.34	3	1.01
Proposed Action	Baker	69.14	Lake and stream deposits	1.20	4	4.78
Proposed Action	Baker	69.14	Grande Ronde Basalt, undivided	1.27	2	2.54
Proposed Action	Baker	69.14	Welded tuff	0.04	2	0.08
Proposed Action	Baker	69.14	Greenschist	0.15	2	0.30
Proposed Action	Baker	69.14	Welded tuff	0.20	2	0.40
Proposed Action	Baker	69.14	Greenschist	0.09	2	0.18
Proposed Action	Baker	69.14	Lake and stream deposits	1.15	4	4.59
Proposed Action	Baker	69.14	Alluvium and colluvium	0.04	3	0.13
Proposed Action	Baker	69.14	Lake and stream deposits	1.48	4	5.93
Proposed Action	Baker	69.14	Columbia River Basalt	0.10	2	0.20

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Baker	69.14	Alluvium and colluvium	0.21	3	0.62
Proposed Action	Baker	69.14	Columbia River Basalt	0.21	2	0.42
Proposed Action	Baker	69.14	Imnaha Basalt	0.06	2	0.12
Proposed Action	Baker	69.14	Grande Ronde Basalt, undivided	0.30	2	0.59
Proposed Action	Baker	69.14	Columbia River Basalt	0.28	2	0.57
Proposed Action	Baker	69.14	Columbia River Basalt	0.65	2	1.29
Proposed Action	Baker	69.14	Gray phyllite	0.37	3	1.11
Proposed Action	Baker	69.14	Lake and stream deposits	0.05	4	0.20
Proposed Action	Baker	69.14	Alluvium and colluvium	0.09	3	0.27
Proposed Action	Baker	69.14	Lake and stream deposits	0.02	4	0.08
Proposed Action	Baker	69.14	Gray phyllite	0.15	3	0.44
Proposed Action	Baker	69.14	Weatherby Formation	1.29	3	3.87
Proposed Action	Baker	69.14	Alluvium	0.16	3	0.48
Proposed Action	Baker	69.14	Weatherby Formation	0.28	3	0.83
Proposed Action	Baker	69.14	Alluvium	0.52	3	1.55
Proposed Action	Baker	69.14	Weatherby Formation	0.55	3	1.65
Proposed Action	Baker	69.14	Alluvium	0.04	3	0.11
Proposed Action	Baker	69.14	Weatherby Formation	0.02	3	0.05
Proposed Action	Baker	69.14	Alluvium	0.28	3	0.83
Proposed Action	Baker	69.14	Weatherby Formation	1.26	3	3.78
Proposed Action	Baker	69.14	Alluvium	0.10	3	0.30
Proposed Action	Baker	69.14	Weatherby Formation	0.08	3	0.23
Proposed Action	Baker	69.14	Olivine basalt	1.43	2	2.87
Proposed Action	Baker	69.14	Tuffaceous lake and stream deposits	0.42	4	1.69
Proposed Action	Baker	69.14	Weatherby Formation	0.06	3	0.19
Proposed Action	Baker	69.14	Landslide debris	0.49	2	0.98
Proposed Action	Baker	69.14	Weatherby Formation	0.40	3	1.21
Proposed Action	Baker	69.14	Landslide debris	0.10	2	0.19
Proposed Action	Baker	69.14	Basalt	0.17	3	0.50
Proposed Action	Baker	69.14	Weatherby Formation	0.14	3	0.41
Proposed Action	Baker	69.14	Basalt	0.16	3	0.48
Proposed Action	Baker	69.14	Weatherby Formation	0.19	3	0.58
Proposed Action	Baker	69.14	Grande Ronde Basalt, undivided	0.13	2	0.26
Proposed Action	Baker	69.14	Weatherby Formation	0.19	3	0.58
Proposed Action	Baker	69.14	Grande Ronde Basalt, undivided	0.21	2	0.41

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Baker	69.14	Jet Creek member	1.19	3	3.58
Proposed Action	Baker	69.14	Grande Ronde Basalt, undivided	0.07	2	0.14
Proposed Action	Baker	69.14	Grande Ronde Basalt, undivided	3.93	2	7.86
Proposed Action	Baker	69.14	Tuffaceous lake and stream deposits	0.47	4	1.89
Proposed Action	Baker	69.14	Huntington Formation	0.23	3	0.68
Proposed Action	Baker	69.14	Jet Creek member	0.10	3	0.29
Proposed Action	Baker	69.14	Huntington Formation	0.36	3	1.09
Proposed Action	Baker	69.14	Jet Creek member	0.23	3	0.69
Proposed Action	Baker	69.14	Grande Ronde Basalt, undivided	0.77	2	1.54
Proposed Action	Baker	69.14	Tuffaceous lake and stream deposits	0.24	4	0.96
Proposed Action	Baker	69.14	Grande Ronde Basalt, undivided	1.03	2	2.06
Paleontological Sensitivity Ranking					2.67	185.03
Proposed Action	Malheur	72.09	Grande Ronde Basalt, undivided	1.18	2	2.37
Proposed Action	Malheur	72.09	Jet Creek member limestone	0.02	3	0.06
Proposed Action	Malheur	72.09	Jet Creek member	0.54	3	1.61
Proposed Action	Malheur	72.09	Tuffaceous lake and stream deposits	0.07	4	0.30
Proposed Action	Malheur	72.09	Jet Creek member	0.70	3	2.09
Proposed Action	Malheur	72.09	Tuffaceous lake and stream deposits	0.13	4	0.52
Proposed Action	Malheur	72.09	Olivine basalt	0.38	2	0.76
Proposed Action	Malheur	72.09	Tuffaceous lake and stream deposits	0.11	4	0.44
Proposed Action	Malheur	72.09	Olivine basalt	0.13	2	0.27
Proposed Action	Malheur	72.09	Tuffaceous lake and stream deposits	0.17	4	0.68
Proposed Action	Malheur	72.09	Weatherby Formation	0.34	3	1.02
Proposed Action	Malheur	72.09	Olivine basalt	0.24	2	0.47
Proposed Action	Malheur	72.09	Tuffaceous lake and stream deposits	0.34	4	1.37
Proposed Action	Malheur	72.09	Olivine basalt	2.65	2	5.30
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.21	4	0.85
Proposed Action	Malheur	72.09	Alluvium	0.11	3	0.34
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.08	4	0.32
Proposed Action	Malheur	72.09	Olivine basalt	1.38	2	2.77
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.92	4	3.67
Proposed Action	Malheur	72.09	Sedimentary rocks	1.00	3	3.01
Proposed Action	Malheur	72.09	Basalt of Powder River	0.90	2	1.80
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.45	4	1.79
Proposed Action	Malheur	72.09	Basalt of Powder River	0.93	2	1.86

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.48	4	1.94
Proposed Action	Malheur	72.09	Basalt of Powder River	0.54	2	1.09
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.74	4	2.96
Proposed Action	Malheur	72.09	Basalt of Powder River	0.31	2	0.61
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	2.46	4	9.85
Proposed Action	Malheur	72.09	Basalt of Powder River	0.14	2	0.29
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.47	4	1.87
Proposed Action	Malheur	72.09	Basalt and andesite	0.20	2	0.40
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.12	4	0.49
Proposed Action	Malheur	72.09	Basalt and andesite	1.92	2	3.84
Proposed Action	Malheur	72.09	Basalt of Powder River	0.38	2	0.76
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.51	4	2.03
Proposed Action	Malheur	72.09	Basalt of Powder River	0.19	2	0.38
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.98	4	3.90
Proposed Action	Malheur	72.09	Basalt of Powder River	0.21	2	0.43
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	0.92	4	3.66
Proposed Action	Malheur	72.09	Basalt of Powder River	0.12	2	0.24
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	2.63	4	10.52
Proposed Action	Malheur	72.09	Grande Ronde Basalt, undivided	0.82	2	1.63
Proposed Action	Malheur	72.09	Tuffaceous sedimentary rocks	2.60	4	10.41
Proposed Action	Malheur	72.09	Rhyolite and andesite	0.58	1	0.58
Proposed Action	Malheur	72.09	Upper calc-alkaline lava flows	0.01	1	0.01
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.61	3	1.82
Proposed Action	Malheur	72.09	Upper calc-alkaline lava flows	0.59	1	0.59
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.53	3	1.59
Proposed Action	Malheur	72.09	Upper calc-alkaline lava flows	1.01	1	1.01
Proposed Action	Malheur	72.09	Landslides	0.35	2	0.69
Proposed Action	Malheur	72.09	Alluvium	0.24	3	0.72
Proposed Action	Malheur	72.09	No data	0.03	0	0.00
Proposed Action	Malheur	72.09	Alluvium	0.03	3	0.08
Proposed Action	Malheur	72.09	Landslides	0.49	2	0.97
Proposed Action	Malheur	72.09	Upper calc-alkaline lava flows	0.99	1	0.99
Proposed Action	Malheur	72.09	Lacustrine sediments	0.27	5	1.36
Proposed Action	Malheur	72.09	Upper calc-alkaline lava flows	0.81	1	0.81
Proposed Action	Malheur	72.09	Lacustrine sediments	0.53	5	2.64

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.35	3	1.06
Proposed Action	Malheur	72.09	Lacustrine sediments	0.61	5	3.05
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.49	3	1.48
Proposed Action	Malheur	72.09	Lacustrine sediments	0.73	5	3.64
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.15	3	0.45
Proposed Action	Malheur	72.09	Lacustrine sediments	0.27	5	1.33
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.22	3	0.67
Proposed Action	Malheur	72.09	Lacustrine sediments	0.45	5	2.24
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	1.39	3	4.16
Proposed Action	Malheur	72.09	Lacustrine sediments	0.05	5	0.23
Proposed Action	Malheur	72.09	Alluvium	0.40	3	1.20
Proposed Action	Malheur	72.09	Lacustrine sediments	0.96	5	4.78
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.95	3	2.85
Proposed Action	Malheur	72.09	Lacustrine sediments	0.12	5	0.62
Proposed Action	Malheur	72.09	Alluvium	0.32	3	0.96
Proposed Action	Malheur	72.09	Lacustrine sediments	0.54	5	2.69
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	1.07	3	3.22
Proposed Action	Malheur	72.09	Lacustrine sediments	0.07	5	0.37
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.60	3	1.80
Proposed Action	Malheur	72.09	Alluvium	0.11	3	0.34
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.16	3	0.48
Proposed Action	Malheur	72.09	Alluvium	0.65	3	1.94
Proposed Action	Malheur	72.09	Lacustrine sediments	0.30	5	1.49
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.57	3	1.71
Proposed Action	Malheur	72.09	Alluvium	0.18	3	0.54
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	2.83	3	8.49
Proposed Action	Malheur	72.09	Lacustrine sediments	0.38	5	1.91
Proposed Action	Malheur	72.09	Upper olivine basalt flows	2.08	2	4.16
Proposed Action	Malheur	72.09	Lacustrine sediments	1.47	5	7.35
Proposed Action	Malheur	72.09	Lower calc-alkaline lava flows	1.16	1	1.16
Proposed Action	Malheur	72.09	Alluvium	0.07	3	0.21
Proposed Action	Malheur	72.09	No data	0.05	0	0.00
Proposed Action	Malheur	72.09	Lower calc-alkaline lava flows	0.08	1	0.08
Proposed Action	Malheur	72.09	Alluvium	0.28	3	0.84
Proposed Action	Malheur	72.09	Lower arkosic sandstone and conglomerate	0.25	3	0.74

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action	Malheur	72.09	Upper olivine basalt flows	0.64	2	1.28
Proposed Action	Malheur	72.09	Lacustrine sediments	0.43	5	2.13
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.12	3	0.35
Proposed Action	Malheur	72.09	Lacustrine sediments	0.18	5	0.92
Proposed Action	Malheur	72.09	Middle calc-alkaline lava flows	0.70	1	0.70
Proposed Action	Malheur	72.09	Lacustrine sediments	0.40	5	2.00
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.75	3	2.24
Proposed Action	Malheur	72.09	Lacustrine sediments	0.08	5	0.39
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.25	3	0.75
Proposed Action	Malheur	72.09	Lacustrine sediments	0.14	5	0.68
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.34	3	1.01
Proposed Action	Malheur	72.09	Lacustrine sediments	0.12	5	0.62
Proposed Action	Malheur	72.09	Middle calc-alkaline lava flows	0.85	1	0.85
Proposed Action	Malheur	72.09	Lacustrine sediments	0.14	5	0.71
Proposed Action	Malheur	72.09	Middle calc-alkaline lava flows	0.35	1	0.35
Proposed Action	Malheur	72.09	Lacustrine sediments	1.58	5	7.89
Proposed Action	Malheur	72.09	Alluvium	0.15	3	0.46
Proposed Action	Malheur	72.09	Lacustrine sediments	0.18	5	0.92
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.19	3	0.56
Proposed Action	Malheur	72.09	Lacustrine sediments	0.20	5	0.98
Proposed Action	Malheur	72.09	Alluvium	0.06	3	0.17
Proposed Action	Malheur	72.09	Lacustrine sediments	2.72	5	13.60
Proposed Action	Malheur	72.09	Lower tuffaceous sedimentary rocks	0.66	4	2.64
Proposed Action	Malheur	72.09	Lower olivine basalt flows	0.19	2	0.38
Proposed Action	Malheur	72.09	Terrace gravels and alluvial fan deposits	0.06	3	0.18
Proposed Action	Malheur	72.09	Lower olivine basalt flows	0.16	2	0.31
Proposed Action	Malheur	72.09	Lower tuffaceous sedimentary rocks	2.48	4	9.91
Proposed Action	Malheur	72.09	Eastern tholeiitic lavas	0.81	2	1.63
Paleontological Sensitivity Ranking					3.15	227.72
Proposed Action and Hemingway Substation	Owyhee	23.78	Eastern tholeiitic lavas	0.01	2	0.03
Proposed Action and Hemingway Substation	Owyhee	23.78	Eastern tholeiitic lavas	0.00	2	0.00
Proposed Action and Hemingway Substation	Owyhee	23.78	Basalt and Andesite of Graveyard Point Area	2.38	2	4.77
Proposed Action and Hemingway Substation	Owyhee	23.78	Basalt and Andesite of Graveyard Point Area	0.00	2	0.00
Proposed Action and Hemingway Substation	Owyhee	23.78	Sand and Mudstone of Stream and Lake Sediments	2.82	4	11.27
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	0.06	5	0.28

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action and Hemingway Substation	Owyhee	23.78	Pole Creek Top Segment of the Jump Creek Rhyolite	0.68	2	1.36
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	1.38	5	6.88
Proposed Action and Hemingway Substation	Owyhee	23.78	Alluvium	0.19	3	0.56
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	3.18	5	15.90
Proposed Action and Hemingway Substation	Owyhee	23.78	Rockville Table Segment of the Jump Creek Rhyolite	0.29	2	0.58
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	0.42	5	2.09
Proposed Action and Hemingway Substation	Owyhee	23.78	Shares Snout Segment of the Jump Creek Rhyolite	0.40	2	0.79
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	1.20	5	6.01
Proposed Action and Hemingway Substation	Owyhee	23.78	Rhyolite of the Cerro Otono Type	0.30	2	0.59
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	1.18	5	5.88
Proposed Action and Hemingway Substation	Owyhee	23.78	Rhyolite of the Cerro Otono Type	0.47	2	0.94
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	0.18	5	0.91
Proposed Action and Hemingway Substation	Owyhee	23.78	Rhyolite of the Cerro Otono Type	0.42	2	0.84
Proposed Action and Hemingway Substation	Owyhee	23.78	Shares Snout Segment of the Jump Creek Rhyolite	0.07	2	0.13
Proposed Action and Hemingway Substation	Owyhee	23.78	Rhyolite of the Cerro Otono Type	0.37	2	0.74
Proposed Action and Hemingway Substation	Owyhee	23.78	Shares Snout Segment of the Jump Creek Rhyolite	0.17	2	0.35
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	1.32	5	6.58
Proposed Action and Hemingway Substation	Owyhee	23.78	Basalt and Andesite of Graveyard Point Area	0.00	2	0.01
Proposed Action and Hemingway Substation	Owyhee	23.78	Rheomorphic welded ignimbrite of Wilson Creek	0.44	2	0.87
Proposed Action and Hemingway Substation	Owyhee	23.78	Rhyolite of the Cerro Otono Type	0.11	2	0.22
Proposed Action and Hemingway Substation	Owyhee	23.78	Rheomorphic welded ignimbrite of Wilson Creek	0.85	2	1.69
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	0.13	5	0.63
Proposed Action and Hemingway Substation	Owyhee	23.78	Rheomorphic welded ignimbrite of Wilson Creek	0.20	2	0.40
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	0.20	5	1.01
Proposed Action and Hemingway Substation	Owyhee	23.78	Rheomorphic welded ignimbrite of Wilson Creek	0.38	2	0.77
Proposed Action and Hemingway Substation	Owyhee	23.78	Rhyolite of the Cerro Otono Type	0.07	2	0.13
Proposed Action and Hemingway Substation	Owyhee	23.78	Rheomorphic welded ignimbrite of Wilson Creek	0.20	2	0.40
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	0.37	5	1.87
Proposed Action and Hemingway Substation	Owyhee	23.78	Older gravels and associated clastic materials from southern sources	0.17	4	0.70
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	0.06	5	0.32
Proposed Action and Hemingway Substation	Owyhee	23.78	Basalt flows associated with the Chalk Hills and Poison Creek Formations, undivided	0.20	3	0.61
Proposed Action and Hemingway Substation	Owyhee	23.78	Poison Creek Formation of the Idaho Group	0.08	5	0.42
Proposed Action and Hemingway Substation	Owyhee	23.78	Gravel and associated clastic material from southern sources	0.85	4	3.40
Proposed Action and Hemingway Substation	Owyhee	23.78	Alluvium	0.11	3	0.32
Proposed Action and Hemingway Substation	Owyhee	23.78	Gravel and associated clastic material from southern sources	0.97	4	3.89

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action and Hemingway Substation	Owyhee	23.78	Alluvium	0.90	3	2.71
Paleontological Sensitivity Ranking					3.21	87.84
Proposed 138/69-kV Rebuild	Baker	5.27	Weatherby Formation	1.37	3	4.12
Proposed 138/69-kV Rebuild	Baker	5.27	Alluvium	0.12	3	0.37
Proposed 138/69-kV Rebuild	Baker	5.27	Weatherby Formation	0.23	3	0.70
Proposed 138/69-kV Rebuild	Baker	5.27	Alluvium	0.24	3	0.73
Proposed 138/69-kV Rebuild	Baker	5.27	Weatherby Formation	0.48	3	1.45
Proposed 138/69-kV Rebuild	Baker	5.27	Alluvium	0.49	3	1.48
Proposed 138/69-kV Rebuild	Baker	5.27	Weatherby Formation	0.44	3	1.33
Proposed 138/69-kV Rebuild	Baker	5.27	Alluvium	0.07	3	0.21
Proposed 138/69-kV Rebuild	Baker	5.27	Weatherby Formation	0.05	3	0.14
Proposed 138/69-kV Rebuild	Baker	5.27	Alluvium	0.61	3	1.83
Proposed 138/69-kV Rebuild	Baker	5.27	Weatherby Formation	0.15	3	0.45
Proposed 138/69-kV Rebuild	Baker	5.27	Tuffaceous lake and stream deposits	0.17	4	0.67
Proposed 138/69-kV Rebuild	Baker	5.27	Alluvium	0.24	3	0.73
Proposed 138/69-kV Rebuild	Baker	5.27	Weatherby Formation	0.04	3	0.11
Proposed 138/69-kV Rebuild	Baker	5.27	Olivine basalt	0.55	2	1.09
Paleontological Sensitivity Ranking					3.00	15.42
Proposed Action—full length	—	305.00	—	—	—	—
Paleontological Sensitivity Ranking					2.71	846.34
Proposed Action and Alternatives to Substation Comparisons						
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Missoula Flood deposits	8.10	3	24.30
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Pomona basalt	0.22	2	0.44
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alluvium	2.52	3	7.56
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.15	2	0.30
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Pomona basalt	0.12	2	0.25
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Elephant Mountain member	0.07	2	0.14
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Missoula Flood deposits	2.73	3	8.20
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.02	2	0.04
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Missoula Flood deposits	1.87	3	5.60
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alluvium	0.10	3	0.30
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.06	2	0.12
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Missoula Flood deposits	2.15	3	6.44
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alluvium	0.09	3	0.26
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Missoula Flood deposits	2.30	3	6.90

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alkali Canyon Formation	1.32	5	6.62
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.05	2	0.10
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alkali Canyon Formation	1.77	5	8.84
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Missoula Flood deposits	0.79	3	2.38
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.07	2	0.15
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Missoula Flood deposits	0.85	3	2.55
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.04	2	0.09
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alluvium	0.13	3	0.40
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.12	2	0.24
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alkali Canyon Formation	0.36	5	1.82
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.18	2	0.35
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alluvium	0.14	3	0.41
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.21	2	0.41
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Missoula Flood deposits	1.90	3	5.69
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alluvial fan deposits	4.67	3	14.00
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alluvium	0.18	3	0.55
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alkali Canyon Formation	0.25	5	1.23
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alluvium	0.10	3	0.31
Proposed Action Compared to Horn Butte Substation and Alternative	Morrow	33.68	Alkali Canyon Formation	0.05	5	0.26
Paleontological Sensitivity Ranking					2.94	107.22
Horn Butte Substation and Alternative	Morrow	26.92	Missoula Flood deposits	1.34	3	4.03
Horn Butte Substation and Alternative	Morrow	26.92	Pomona basalt	0.22	2	0.44
Horn Butte Substation and Alternative	Morrow	26.92	Alluvium	2.52	3	7.56
Horn Butte Substation and Alternative	Morrow	26.92	Undifferentiated Frenchman Springs flows	0.15	2	0.30
Horn Butte Substation and Alternative	Morrow	26.92	Pomona basalt	0.12	2	0.25
Horn Butte Substation and Alternative	Morrow	26.92	Elephant Mountain member	0.07	2	0.14
Horn Butte Substation and Alternative	Morrow	26.92	Missoula Flood deposits	2.73	3	8.20
Horn Butte Substation and Alternative	Morrow	26.92	Undifferentiated Frenchman Springs flows	0.02	2	0.04
Horn Butte Substation and Alternative	Morrow	26.92	Missoula Flood deposits	1.87	3	5.60
Horn Butte Substation and Alternative	Morrow	26.92	Alluvium	0.10	3	0.30
Horn Butte Substation and Alternative	Morrow	26.92	Undifferentiated Frenchman Springs flows	0.06	2	0.12
Horn Butte Substation and Alternative	Morrow	26.92	Missoula Flood deposits	2.15	3	6.44
Horn Butte Substation and Alternative	Morrow	26.92	Alluvium	0.09	3	0.26
Horn Butte Substation and Alternative	Morrow	26.92	Missoula Flood deposits	2.30	3	6.90
Horn Butte Substation and Alternative	Morrow	26.92	Alkali Canyon Formation	1.32	5	6.62

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Horn Butte Substation and Alternative	Morrow	26.92	Undifferentiated Frenchman Springs flows	0.05	2	0.10
Horn Butte Substation and Alternative	Morrow	26.92	Alkali Canyon Formation	1.77	5	8.84
Horn Butte Substation and Alternative	Morrow	26.92	Missoula Flood deposits	0.79	3	2.38
Horn Butte Substation and Alternative	Morrow	26.92	Undifferentiated Frenchman Springs flows	0.07	2	0.15
Horn Butte Substation and Alternative	Morrow	26.92	Missoula Flood deposits	0.85	3	2.55
Horn Butte Substation and Alternative	Morrow	26.92	Undifferentiated Frenchman Springs flows	0.04	2	0.09
Horn Butte Substation and Alternative	Morrow	26.92	Alluvium	0.13	3	0.40
Horn Butte Substation and Alternative	Morrow	26.92	Undifferentiated Frenchman Springs flows	0.12	2	0.24
Horn Butte Substation and Alternative	Morrow	26.92	Alkali Canyon Formation	0.36	5	1.82
Horn Butte Substation and Alternative	Morrow	26.92	Undifferentiated Frenchman Springs flows	0.18	2	0.35
Horn Butte Substation and Alternative	Morrow	26.92	Alluvium	0.14	3	0.41
Horn Butte Substation and Alternative	Morrow	26.92	Undifferentiated Frenchman Springs flows	0.21	2	0.41
Horn Butte Substation and Alternative	Morrow	26.92	Missoula Flood deposits	1.90	3	5.69
Horn Butte Substation and Alternative	Morrow	26.92	Alluvial fan deposits	4.67	3	14.00
Horn Butte Substation and Alternative	Morrow	26.92	Alluvium	0.18	3	0.55
Horn Butte Substation and Alternative	Morrow	26.92	Alkali Canyon Formation	0.25	5	1.23
Horn Butte Substation and Alternative	Morrow	26.92	Alluvium	0.10	3	0.31
Horn Butte Substation and Alternative	Morrow	26.92	Alkali Canyon Formation	0.05	5	0.26
Paleontological Sensitivity Ranking					2.94	86.95
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Missoula Flood deposits	8.10	3	24.30
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Pomona basalt	0.22	2	0.44
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alluvium	2.52	3	7.56
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.15	2	0.30
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Pomona basalt	0.12	2	0.25
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Elephant Mountain member	0.07	2	0.14
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Missoula Flood deposits	2.73	3	8.20
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.02	2	0.04
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Missoula Flood deposits	1.87	3	5.60
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alluvium	0.10	3	0.30
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.06	2	0.12
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Missoula Flood deposits	2.15	3	6.44
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alluvium	0.09	3	0.26
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Missoula Flood deposits	2.30	3	6.90
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alkali Canyon Formation	1.32	5	6.62
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.05	2	0.10

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alkali Canyon Formation	1.77	5	8.84
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Missoula Flood deposits	0.79	3	2.38
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.07	2	0.15
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Missoula Flood deposits	0.85	3	2.55
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.04	2	0.09
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alluvium	0.13	3	0.40
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.12	2	0.24
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alkali Canyon Formation	0.36	5	1.82
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.18	2	0.35
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alluvium	0.14	3	0.41
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Undifferentiated Frenchman Springs flows	0.21	2	0.41
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Missoula Flood deposits	1.90	3	5.69
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alluvial fan deposits	4.67	3	14.00
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alluvium	0.18	3	0.55
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alkali Canyon Formation	0.25	5	1.23
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alluvium	0.10	3	0.31
Proposed Action Compared to Longhorn Substation and Alternative	Morrow	33.68	Alkali Canyon Formation	0.05	5	0.26
Paleontological Sensitivity Ranking					2.94	107.22
Longhorn Substation and Alternative	Morrow	18.97	Eolian sand and ash	9.59	3	28.78
Longhorn Substation and Alternative	Morrow	18.97	Missoula Flood deposits	0.76	3	2.29
Longhorn Substation and Alternative	Morrow	18.97	Eolian sand and ash	0.46	3	1.39
Longhorn Substation and Alternative	Morrow	18.97	Missoula Flood deposits	0.18	3	0.55
Longhorn Substation and Alternative	Morrow	18.97	Eolian sand and ash	0.25	3	0.74
Longhorn Substation and Alternative	Morrow	18.97	Missoula Flood deposits	1.29	3	3.88
Longhorn Substation and Alternative	Morrow	18.97	Eolian sand and ash	0.13	3	0.38
Longhorn Substation and Alternative	Morrow	18.97	Missoula Flood deposits	0.58	3	1.75
Longhorn Substation and Alternative	Morrow	18.97	Eolian sand and ash	0.14	3	0.42
Longhorn Substation and Alternative	Morrow	18.97	Missoula Flood deposits	0.31	3	0.94
Longhorn Substation and Alternative	Morrow	18.97	Eolian sand and ash	0.05	3	0.14
Longhorn Substation and Alternative	Morrow	18.97	Missoula Flood deposits	0.09	3	0.28
Longhorn Substation and Alternative	Morrow	18.97	Eolian sand and ash	0.31	3	0.92
Longhorn Substation and Alternative	Morrow	18.97	Missoula Flood deposits	0.46	3	1.39
Longhorn Substation and Alternative	Morrow	18.97	Eolian sand and ash	0.07	3	0.21
Longhorn Substation and Alternative	Morrow	18.97	Missoula Flood deposits	0.34	3	1.01
Longhorn Substation and Alternative	Morrow	18.97	Eolian sand and ash	0.20	3	0.61

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Longhorn Substation and Alternative	Morrow	18.97	Missoula Flood deposits	0.02	3	0.05
Longhorn Substation and Alternative	Morrow	18.97	Alkali Canyon Formation	1.63	5	8.14
Longhorn Substation and Alternative	Morrow	18.97	Alluvium	1.60	3	4.79
Longhorn Substation and Alternative	Morrow	18.97	Alkali Canyon Formation	0.50	5	2.50
Paleontological Sensitivity Ranking					3.19	61.15
Longhorn Variation	Morrow	22.35	Alkali Canyon Formation	0.57	3	1.72
Longhorn Variation	Morrow	22.35	Alluvial fan deposits	4.67	3	14.00
Longhorn Variation	Morrow	22.35	Alluvium	0.51	3	1.54
Longhorn Variation	Morrow	22.35	Eolian sand and ash	8.64	3	25.93
Longhorn Variation	Morrow	22.35	Missoula Flood deposits	7.96	3	23.87
Paleontological Sensitivity Ranking					3	67.05
Comparison of Proposed Action and Alternatives						
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Ferroandesite of Fiddlers Hell	0.77	1	0.77
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Basalt of Little Catherine Creek	0.16	2	0.32
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Ferroandesite of Fiddlers Hell	0.28	1	0.28
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Basalt of Little Catherine Creek	0.11	2	0.22
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Ferroandesite of Fiddlers Hell	0.25	1	0.25
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Alluvium	0.14	3	0.42
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Landslide deposits	0.23	2	0.46
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Basalt of Little Catherine Creek	0.05	2	0.10
Proposed Action Compared to Glass Hill Alternative	Union	7.59	N2 Grande Ronde Basalt	0.01	2	0.02
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Ferroandesite of Fiddlers Hell	0.30	1	0.30
Proposed Action Compared to Glass Hill Alternative	Union	7.59	N2 Grande Ronde Basalt	0.07	2	0.13
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Ferroandesite of Fiddlers Hell	0.19	1	0.19
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Basalt of Little Catherine Creek	0.48	2	0.96
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Ferroandesite of Fiddlers Hell	1.88	1	1.88
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Basalt of Little Catherine Creek	0.17	2	0.34
Proposed Action Compared to Glass Hill Alternative	Union	7.59	Andesite and basaltic andesite	2.52	2	5.05
Paleontological Sensitivity Ranking					1.69	11.67
Glass Hill Alternative	Union	7.61	Ferroandesite of Fiddlers Hell	2.03	1	2.03
Glass Hill Alternative	Union	7.61	Alluvium	0.22	3	0.67
Glass Hill Alternative	Union	7.61	Ferroandesite of Fiddlers Hell	0.22	1	0.22
Glass Hill Alternative	Union	7.61	Basalt of Little Catherine Creek	0.42	2	0.85
Glass Hill Alternative	Union	7.61	Ferroandesite of Fiddlers Hell	2.25	1	2.25
Glass Hill Alternative	Union	7.61	N2 Grande Ronde Basalt	0.25	2	0.49

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Glass Hill Alternative	Union	7.61	Ferroandesite of Fiddlers Hell	0.29	1	0.29
Glass Hill Alternative	Union	7.61	N2 Grande Ronde Basalt	0.13	2	0.27
Glass Hill Alternative	Union	7.61	Ferroandesite of Fiddlers Hell	0.12	1	0.12
Glass Hill Alternative	Union	7.61	Andesite and basaltic andesite	0.49	2	0.99
Glass Hill Alternative	Union	7.61	Basalt of Little Catherine Creek	0.04	2	0.08
Glass Hill Alternative	Union	7.61	Ferroandesite of Fiddlers Hell	0.21	1	0.21
Glass Hill Alternative	Union	7.61	Basalt of Little Catherine Creek	0.11	2	0.22
Glass Hill Alternative	Union	7.61	Andesite and basaltic andesite	0.82	2	1.63
Paleontological Sensitivity Ranking					1.64	10.32
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Volcanic and metavolcanic rocks	2.79	2	5.58
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Volcanic and sedimentary rocks	0.59	3	1.78
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Alluvium	1.18	3	3.53
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Volcanic and sedimentary rocks	0.21	3	0.63
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Andesite flows and domes	0.87	1	0.87
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Volcanic and sedimentary rocks	0.66	3	1.98
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Pre-upper Triassic intrusive complex	0.91	1	0.91
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Olivine basalt sheet flows	0.44	2	0.88
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Pre-upper Triassic intrusive complex	0.13	1	0.13
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Andesite	0.98	1	0.98
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Olivine basalt sheet flows	2.12	2	4.24
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Alluvium	1.13	3	3.39
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Olivine basalt sheet flows	5.46	2	10.91
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Mafic intrusive rocks	1.16	1	1.16
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Tuffaceous sedimentary rocks	0.75	4	3.02
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Mafic intrusive rocks	0.91	1	0.91
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Olivine basalt sheet flows	1.31	2	2.62
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Mafic intrusive rocks	0.82	1	0.82
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Olivine basalt sheet flows	0.63	2	1.26
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Basalt	0.40	2	0.81
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Elkhorn Ridge Argillite	0.76	3	2.28
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Basalt	0.26	2	0.52
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Tuffaceous sedimentary rocks	3.86	4	15.42
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Elkhorn Ridge Argillite	2.15	3	6.45
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Silicic welded and non-welded tuff	0.22	2	0.44
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Pre-Tertiary rocks, undivided	4.74	3	14.22

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Tuffaceous sedimentary rocks	2.44	4	9.76
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Lake and stream deposits	0.79	4	3.14
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Alluvium and colluvium	0.22	3	0.67
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Lake and stream deposits	1.63	4	6.53
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Alluvium and colluvium	0.39	3	1.17
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Lake and stream deposits	1.15	4	4.60
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Alluvium and colluvium	0.34	3	1.01
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Lake and stream deposits	1.20	4	4.78
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Grande Ronde Basalt, undivided	1.27	2	2.54
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Welded tuff	0.04	2	0.08
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Greenschist	0.15	2	0.30
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Welded tuff	0.20	2	0.40
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Greenschist	0.09	2	0.18
Proposed Action Compared to Timber Canyon Alternative	Baker	46.31	Lake and stream deposits	0.97	4	3.88
Paleontological Sensitivity Ranking					2.50	124.79
Timber Canyon Alternative	Union/ Baker	57.48	Volcanic and metavolcanic rocks	1.19	2	2.39
Timber Canyon Alternative	Union/ Baker	57.48	Sedimentary rocks	0.15	3	0.46
Timber Canyon Alternative	Union/ Baker	57.48	Andesite flows and domes	2.09	1	2.09
Timber Canyon Alternative	Union/ Baker	57.48	Volcanic and metavolcanic rocks	0.86	2	1.72
Timber Canyon Alternative	Union/ Baker	57.48	Olivine basalt sheet flows	0.67	2	1.34
Timber Canyon Alternative	Union/ Baker	57.48	Volcanic and metavolcanic rocks	0.06	2	0.13
Timber Canyon Alternative	Union/ Baker	57.48	Clover Creek Fm., undifferentiated	0.02	3	0.07
Timber Canyon Alternative	Union/ Baker	57.48	Olivine basalt	0.06	2	0.13
Timber Canyon Alternative	Union/ Baker	57.48	Clover Creek Fm., undifferentiated	0.70	3	2.11
Timber Canyon Alternative	Union/ Baker	57.48	Flood andesite and dacite, undifferentiated	3.24	1	3.24
Timber Canyon Alternative	Union/ Baker	57.48	Stream alluvium	0.85	3	2.54
Timber Canyon Alternative	Union/ Baker	57.48	Flood andesite and dacite, undifferentiated	1.82	1	1.82
Timber Canyon Alternative	Union/ Baker	57.48	Clover Creek Fm., undifferentiated	0.23	3	0.68
Timber Canyon Alternative	Union/ Baker	57.48	Flood andesite and dacite, undifferentiated	0.32	1	0.32
Timber Canyon Alternative	Union/ Baker	57.48	Clover Creek Fm., undifferentiated	0.07	3	0.20
Timber Canyon Alternative	Union/ Baker	57.48	Stream alluvium	0.02	3	0.05
Timber Canyon Alternative	Union/ Baker	57.48	Clover Creek Fm., undifferentiated	0.35	3	1.05
Timber Canyon Alternative	Union/ Baker	57.48	Flood andesite and dacite, undifferentiated	1.68	1	1.68
Timber Canyon Alternative	Union/ Baker	57.48	Frazier Mtn. basaltic andesite	0.07	2	0.13
Timber Canyon Alternative	Union/ Baker	57.48	Burn Creek sedimentary deposit	0.07	3	0.22

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Timber Canyon Alternative	Union/ Baker	57.48	Grande Ronde Basalt Formation, undifferentiated	0.21	2	0.41
Timber Canyon Alternative	Union/ Baker	57.48	Stream alluvium	0.02	3	0.06
Timber Canyon Alternative	Union/ Baker	57.48	Grande Ronde Basalt Formation, undifferentiated	0.15	2	0.30
Timber Canyon Alternative	Union/ Baker	57.48	Andesite of Sawtooth Crater	0.07	1	0.07
Timber Canyon Alternative	Union/ Baker	57.48	Andesite	4.14	1	4.14
Timber Canyon Alternative	Union/ Baker	57.48	Andesite	1.17	1	1.17
Timber Canyon Alternative	Union/ Baker	57.48	Lower flows of reversed magnetic polarity	0.24	2	0.47
Timber Canyon Alternative	Union/ Baker	57.48	Lower flows of normal magnetic polarity	4.32	2	8.64
Timber Canyon Alternative	Union/ Baker	57.48	Albite granite	2.17	1	2.17
Timber Canyon Alternative	Union/ Baker	57.48	Lower flows of normal magnetic polarity	1.00	2	2.00
Timber Canyon Alternative	Union/ Baker	57.48	Albite granite	0.26	1	0.26
Timber Canyon Alternative	Union/ Baker	57.48	Clover Creek Greenstone	0.82	3	2.45
Timber Canyon Alternative	Union/ Baker	57.48	Albite granite	0.20	1	0.20
Timber Canyon Alternative	Union/ Baker	57.48	Olivine basalt	0.12	2	0.23
Timber Canyon Alternative	Union/ Baker	57.48	Albite granite	6.42	1	6.42
Timber Canyon Alternative	Union/ Baker	57.48	Olivine basalt	2.00	2	4.01
Timber Canyon Alternative	Union/ Baker	57.48	Terrace and bench gravels	1.50	3	4.49
Timber Canyon Alternative	Union/ Baker	57.48	Olivine basalt	0.09	2	0.18
Timber Canyon Alternative	Union/ Baker	57.48	Terrace and bench gravels	0.29	3	0.88
Timber Canyon Alternative	Union/ Baker	57.48	Gabbro	0.67	1	0.67
Timber Canyon Alternative	Union/ Baker	57.48	Recent alluvium	0.09	3	0.27
Timber Canyon Alternative	Union/ Baker	57.48	Imnaha Basalt	0.11	2	0.23
Timber Canyon Alternative	Union/ Baker	57.48	Lower flows of reversed magnetic polarity	5.00	2	10.00
Timber Canyon Alternative	Union/ Baker	57.48	Imnaha Basalt	0.35	2	0.69
Timber Canyon Alternative	Union/ Baker	57.48	Elkhorn Ridge Argillite	0.42	3	1.25
Timber Canyon Alternative	Union/ Baker	57.48	Gabbro and meta-gabbro	0.28	1	0.28
Timber Canyon Alternative	Union/ Baker	57.48	Elkhorn Ridge Argillite	0.24	3	0.71
Timber Canyon Alternative	Union/ Baker	57.48	Imnaha Basalt	0.34	2	0.69
Timber Canyon Alternative	Union/ Baker	57.48	Elkhorn Ridge Argillite	1.24	3	3.71
Timber Canyon Alternative	Union/ Baker	57.48	Limestone	0.05	3	0.15
Timber Canyon Alternative	Union/ Baker	57.48	Elkhorn Ridge Argillite	1.68	3	5.04
Timber Canyon Alternative	Union/ Baker	57.48	Greenschist	0.95	3	2.84
Timber Canyon Alternative	Union/ Baker	57.48	Gabbro and meta-gabbro	0.87	1	0.87
Timber Canyon Alternative	Union/ Baker	57.48	Elkhorn Ridge Argillite	0.75	3	2.26
Timber Canyon Alternative	Union/ Baker	57.48	Gabbro and meta-gabbro	0.11	1	0.11

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Timber Canyon Alternative	Union/ Baker	57.48	Quartz diorite and granodiorite	2.83	1	2.83
Timber Canyon Alternative	Union/ Baker	57.48	Greenschist	0.68	2	1.35
Timber Canyon Alternative	Union/ Baker	57.48	Columbia River Basalt	0.08	2	0.17
Timber Canyon Alternative	Union/ Baker	57.48	Greenschist	0.05	2	0.09
Timber Canyon Alternative	Union/ Baker	57.48	Lake and stream deposits	0.17	4	0.67
Timber Canyon Alternative	Union/ Baker	57.48	Welded tuff	0.09	2	0.19
Timber Canyon Alternative	Union/ Baker	57.48	Lake and stream deposits	0.73	4	2.90
Paleontological Sensitivity Ranking					2.13	98.89
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Olivine basalt sheet flows	5.22	2	10.45
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Mafic intrusive rocks	1.16	1	1.16
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Tuffaceous sedimentary rocks	0.75	4	3.02
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Mafic intrusive rocks	0.91	1	0.91
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Olivine basalt sheet flows	1.31	2	2.62
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Mafic intrusive rocks	0.82	1	0.82
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Olivine basalt sheet flows	0.63	2	1.26
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Basalt	0.40	2	0.81
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Elkhorn Ridge Argillite	0.76	3	2.28
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Basalt	0.26	2	0.52
Proposed Action Compared to Flagstaff Alternative	Baker	14.21	Tuffaceous sedimentary rocks	1.98	4	7.94
Paleontological Sensitivity Ranking					2.18	31.77
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Alluvium	0.04	3	0.12
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Olivine basalt sheet flows	0.17	2	0.34
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Basalt of Powder River	0.33	2	0.65
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Alluvium	1.13	3	3.39
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Basalt and andesite	0.04	2	0.08
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Upper Jurassic-lower Cretaceous plutons	0.48	1	0.48
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Olivine basalt sheet flows	1.06	2	2.13
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Alluvium	1.47	3	4.42
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Alluvium	0.39	3	1.18
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Basalt of Powder River	0.24	2	0.48
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Basalt and andesite	0.05	2	0.11
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Upper Jurassic-lower Cretaceous plutons	0.50	1	0.50
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Pre-upper Triassic intrusive complex	0.20	1	0.20
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Mafic intrusive rocks	0.40	1	0.40
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Alluvium	0.43	3	1.30

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Olivine basalt sheet flows	2.79	2	5.58
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Sedimentary and volcanic rocks	0.35	3	1.06
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Olivine basalt sheet flows	0.04	2	0.07
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Basalt	1.73	2	3.46
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Lacustrine and fluvial deposits	0.78	4	3.13
Flagstaff Alternative (including 230-kV Rebuild)	Baker	15.25	Tuffaceous sedimentary rocks	2.60	4	10.42
Paleontological Sensitivity Ranking					2.29	39.51
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.38	5	1.89
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.49	3	1.48
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.73	5	3.64
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.15	3	0.45
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.27	5	1.33
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.22	3	0.67
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.45	5	2.24
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	1.39	3	4.16
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.05	5	0.23
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Alluvium	0.40	3	1.20
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.96	5	4.78
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.95	3	2.85
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.12	5	0.62
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Alluvium	0.32	3	0.96
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.54	5	2.69
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	1.07	3	3.22
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.07	5	0.37
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.60	3	1.80
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Alluvium	0.11	3	0.34
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.16	3	0.48
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Alluvium	0.65	3	1.94
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.30	5	1.49
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.57	3	1.71
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Alluvium	0.18	3	0.54
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	2.83	3	8.49
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.38	5	1.91
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Upper olivine basalt flows	2.08	2	4.16
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	1.47	5	7.35

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lower calc-alkaline lava flows	1.16	1	1.16
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Alluvium	0.07	3	0.21
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	No data	0.05	0	0.00
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lower calc-alkaline lava flows	0.08	1	0.08
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Alluvium	0.28	3	0.84
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lower arkosic sandstone and conglomerate	0.25	3	0.74
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Upper olivine basalt flows	0.64	2	1.28
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.43	5	2.13
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.12	3	0.35
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.18	5	0.92
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Middle calc-alkaline lava flows	0.70	1	0.70
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.40	5	2.00
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.75	3	2.24
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.08	5	0.39
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.25	3	0.75
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.14	5	0.68
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.34	3	1.01
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.12	5	0.62
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Middle calc-alkaline lava flows	0.85	1	0.85
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.14	5	0.71
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Middle calc-alkaline lava flows	0.35	1	0.35
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	1.58	5	7.89
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Alluvium	0.15	3	0.46
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.18	5	0.92
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.19	3	0.56
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	0.20	5	0.98
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Alluvium	0.06	3	0.17
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lacustrine sediments	2.72	5	13.60
Proposed Action Compared to Malheur S Alternative	Malheur	30.58	Lower tuffaceous sedimentary rocks	0.22	4	0.90
Paleontological Sensitivity Ranking					3.56	106.52
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	0.42	5	2.09
Malheur S Alternative	Malheur	33.64	Terrace gravels and alluvial fan deposits	0.88	3	2.64
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	0.75	5	3.76
Malheur S Alternative	Malheur	33.64	Terrace gravels and alluvial fan deposits	0.57	3	1.72
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	0.06	5	0.32

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Malheur S Alternative	Malheur	33.64	Terrace gravels and alluvial fan deposits	0.52	3	1.56
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	0.14	5	0.71
Malheur S Alternative	Malheur	33.64	Terrace gravels and alluvial fan deposits	0.07	3	0.22
Malheur S Alternative	Malheur	33.64	Alluvium	0.07	3	0.20
Malheur S Alternative	Malheur	33.64	Terrace gravels and alluvial fan deposits	0.14	3	0.43
Malheur S Alternative	Malheur	33.64	Alluvium	1.67	3	5.01
Malheur S Alternative	Malheur	33.64	Terrace gravels and alluvial fan deposits	1.07	3	3.21
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	0.82	5	4.08
Malheur S Alternative	Malheur	33.64	Upper olivine basalt flows	0.31	2	0.62
Malheur S Alternative	Malheur	33.64	Terrace gravels and alluvial fan deposits	0.09	3	0.26
Malheur S Alternative	Malheur	33.64	Upper olivine basalt flows	0.40	2	0.80
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	0.24	5	1.18
Malheur S Alternative	Malheur	33.64	Upper olivine basalt flows	0.13	2	0.26
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	1.26	5	6.29
Malheur S Alternative	Malheur	33.64	Terrace gravels and alluvial fan deposits	0.49	3	1.47
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	0.10	5	0.51
Malheur S Alternative	Malheur	33.64	Upper olivine basalt flows	0.31	2	0.62
Malheur S Alternative	Malheur	33.64	Terrace gravels and alluvial fan deposits	0.28	3	0.83
Malheur S Alternative	Malheur	33.64	Upper olivine basalt flows	0.65	2	1.29
Malheur S Alternative	Malheur	33.64	Upper arkosic sandstone, conglomerate and tuffaceous siltstone	0.48	4	1.93
Malheur S Alternative	Malheur	33.64	Upper calc-alkaline lava flows	0.93	1	0.93
Malheur S Alternative	Malheur	33.64	Alluvium	0.47	3	1.41
Malheur S Alternative	Malheur	33.64	Landslides	0.02	2	0.04
Malheur S Alternative	Malheur	33.64	Alluvium	2.09	3	6.27
Malheur S Alternative	Malheur	33.64	Upper arkosic sandstone, conglomerate and tuffaceous siltstone	1.19	4	4.76
Malheur S Alternative	Malheur	33.64	Alluvium	0.14	3	0.43
Malheur S Alternative	Malheur	33.64	Upper arkosic sandstone, conglomerate and tuffaceous siltstone	0.69	4	2.74
Malheur S Alternative	Malheur	33.64	Alluvium	0.15	3	0.44
Malheur S Alternative	Malheur	33.64	Upper arkosic sandstone, conglomerate and tuffaceous siltstone	0.06	4	0.26
Malheur S Alternative	Malheur	33.64	Upper olivine basalt flows	1.78	2	3.57
Malheur S Alternative	Malheur	33.64	Upper calc-alkaline lava flows	0.64	1	0.64
Malheur S Alternative	Malheur	33.64	Upper arkosic sandstone, conglomerate and tuffaceous siltstone	0.12	4	0.46
Malheur S Alternative	Malheur	33.64	Tuff of Kern Basin	0.13	2	0.26
Malheur S Alternative	Malheur	33.64	Lower arkosic sandstone and conglomerate	0.08	3	0.24
Malheur S Alternative	Malheur	33.64	Terrace gravels and alluvial fan deposits	0.56	3	1.69

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Malheur S Alternative	Malheur	33.64	Lower arkosic sandstone and conglomerate	0.10	3	0.30
Malheur S Alternative	Malheur	33.64	Landslides	0.10	2	0.20
Malheur S Alternative	Malheur	33.64	Lower calc-alkaline lava flows	0.23	1	0.23
Malheur S Alternative	Malheur	33.64	Middle calc-alkaline lava flows	0.70	1	0.70
Malheur S Alternative	Malheur	33.64	Lower calc-alkaline lava flows	0.11	1	0.11
Malheur S Alternative	Malheur	33.64	Middle calc-alkaline lava flows	0.08	1	0.08
Malheur S Alternative	Malheur	33.64	Lower calc-alkaline lava flows	1.66	1	1.66
Malheur S Alternative	Malheur	33.64	Alluvium	0.12	3	0.36
Malheur S Alternative	Malheur	33.64	Lower calc-alkaline lava flows	0.52	1	0.52
Malheur S Alternative	Malheur	33.64	Middle calc-alkaline lava flows	0.20	1	0.20
Malheur S Alternative	Malheur	33.64	Lower arkosic sandstone and conglomerate	0.29	3	0.87
Malheur S Alternative	Malheur	33.64	Middle calc-alkaline lava flows	1.53	1	1.53
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	0.22	5	1.12
Malheur S Alternative	Malheur	33.64	Middle calc-alkaline lava flows	0.84	1	0.84
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	0.25	5	1.23
Malheur S Alternative	Malheur	33.64	Middle calc-alkaline lava flows	0.22	1	0.22
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	0.55	5	2.74
Malheur S Alternative	Malheur	33.64	Middle calc-alkaline lava flows	0.77	1	0.77
Malheur S Alternative	Malheur	33.64	Lower tuffaceous sedimentary rocks	0.21	4	0.85
Malheur S Alternative	Malheur	33.64	Tuffaceous siltstones, tuffs, and nonwelded ash-flow tuff	0.31	4	1.26
Malheur S Alternative	Malheur	33.64	Middle calc-alkaline lava flows	0.56	1	0.56
Malheur S Alternative	Malheur	33.64	Tuffaceous siltstones, tuffs, and nonwelded ash-flow tuff	1.15	4	4.59
Malheur S Alternative	Malheur	33.64	Lacustrine sediments	1.72	5	8.59
Malheur S Alternative	Malheur	33.64	Lower tuffaceous sedimentary rocks	0.22	4	0.90
Paleontological Sensitivity Ranking					2.94	96.59
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.38	5	1.89
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.49	3	1.48
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.73	5	3.64
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.15	3	0.45
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.27	5	1.33
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.22	3	0.67
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.45	5	2.24
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	1.39	3	4.16
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.05	5	0.23
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Alluvium	0.40	3	1.20

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.96	5	4.78
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.95	3	2.85
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.12	5	0.62
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Alluvium	0.32	3	0.96
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.54	5	2.69
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	1.07	3	3.22
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.07	5	0.37
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.60	3	1.80
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Alluvium	0.11	3	0.34
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.16	3	0.48
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Alluvium	0.65	3	1.94
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.30	5	1.49
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.57	3	1.71
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Alluvium	0.18	3	0.54
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	2.83	3	8.49
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.38	5	1.91
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Upper olivine basalt flows	2.08	2	4.16
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	1.47	5	7.35
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lower calc-alkaline lava flows	1.16	1	1.16
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Alluvium	0.07	3	0.21
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	No data	0.05	0	0.00
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lower calc-alkaline lava flows	0.08	1	0.08
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Alluvium	0.28	3	0.84
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lower arkosic sandstone and conglomerate	0.25	3	0.74
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Upper olivine basalt flows	0.64	2	1.28
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.43	5	2.13
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.12	3	0.35
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.18	5	0.92
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Middle calc-alkaline lava flows	0.70	1	0.70
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.40	5	2.00
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.75	3	2.24
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.08	5	0.39
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.25	3	0.75
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.14	5	0.68
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.34	3	1.01

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.12	5	0.62
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Middle calc-alkaline lava flows	0.85	1	0.85
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.14	5	0.71
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Middle calc-alkaline lava flows	0.35	1	0.35
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	1.58	5	7.89
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Alluvium	0.15	3	0.46
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.18	5	0.92
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Terrace gravels and alluvial fan deposits	0.19	3	0.56
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	0.20	5	0.98
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Alluvium	0.06	3	0.17
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lacustrine sediments	2.72	5	13.60
Proposed Action Compared to Malheur A Alternative	Malheur	30.58	Lower tuffaceous sedimentary rocks	0.22	4	0.90
Paleontological Sensitivity Ranking					3.56	106.52
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	0.42	5	2.09
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.88	3	2.64
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	0.75	5	3.76
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.57	3	1.72
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	0.06	5	0.32
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.52	3	1.56
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	0.14	5	0.71
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.07	3	0.22
Malheur A Alternative	Malheur	33.20	Alluvium	0.07	3	0.20
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.14	3	0.43
Malheur A Alternative	Malheur	33.20	Alluvium	1.67	3	5.01
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	1.07	3	3.21
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	0.82	5	4.08
Malheur A Alternative	Malheur	33.20	Upper olivine basalt flows	0.31	2	0.62
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.09	3	0.26
Malheur A Alternative	Malheur	33.20	Upper olivine basalt flows	0.40	2	0.80
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	0.24	5	1.18
Malheur A Alternative	Malheur	33.20	Upper olivine basalt flows	0.13	2	0.26
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	1.26	5	6.29
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.49	3	1.47
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	0.10	5	0.51
Malheur A Alternative	Malheur	33.20	Upper olivine basalt flows	0.31	2	0.62

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.28	3	0.83
Malheur A Alternative	Malheur	33.20	Upper olivine basalt flows	0.65	2	1.29
Malheur A Alternative	Malheur	33.20	Upper arkosic sandstone, conglomerate and tuffaceous siltstone	0.48	4	1.93
Malheur A Alternative	Malheur	33.20	Upper calc-alkaline lava flows	0.93	1	0.93
Malheur A Alternative	Malheur	33.20	Alluvium	0.47	3	1.41
Malheur A Alternative	Malheur	33.20	Landslides	0.02	2	0.04
Malheur A Alternative	Malheur	33.20	Alluvium	2.09	3	6.27
Malheur A Alternative	Malheur	33.20	Upper arkosic sandstone, conglomerate and tuffaceous siltstone	1.19	4	4.76
Malheur A Alternative	Malheur	33.20	Alluvium	0.14	3	0.43
Malheur A Alternative	Malheur	33.20	Upper arkosic sandstone, conglomerate and tuffaceous siltstone	0.69	4	2.74
Malheur A Alternative	Malheur	33.20	Alluvium	0.15	3	0.44
Malheur A Alternative	Malheur	33.20	Upper arkosic sandstone, conglomerate and tuffaceous siltstone	0.06	4	0.26
Malheur A Alternative	Malheur	33.20	Upper olivine basalt flows	0.82	2	1.65
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.59	3	1.76
Malheur A Alternative	Malheur	33.20	Upper olivine basalt flows	1.09	2	2.17
Malheur A Alternative	Malheur	33.20	Upper calc-alkaline lava flows	0.28	1	0.28
Malheur A Alternative	Malheur	33.20	Upper arkosic sandstone, conglomerate and tuffaceous siltstone	0.21	4	0.83
Malheur A Alternative	Malheur	33.20	Landslides	0.24	2	0.48
Malheur A Alternative	Malheur	33.20	Tuff of Kern Basin	0.16	2	0.32
Malheur A Alternative	Malheur	33.20	Basalt intrusions	0.32	2	0.64
Malheur A Alternative	Malheur	33.20	Landslides	0.30	2	0.60
Malheur A Alternative	Malheur	33.20	Middle calc-alkaline lava flows	0.37	1	0.37
Malheur A Alternative	Malheur	33.20	Lower calc-alkaline lava flows	0.52	1	0.52
Malheur A Alternative	Malheur	33.20	Landslides	0.46	2	0.91
Malheur A Alternative	Malheur	33.20	Alluvium	0.20	3	0.60
Malheur A Alternative	Malheur	33.20	Lower calc-alkaline lava flows	0.29	1	0.29
Malheur A Alternative	Malheur	33.20	Lower arkosic sandstone and conglomerate	0.13	3	0.38
Malheur A Alternative	Malheur	33.20	Middle calc-alkaline lava flows	0.65	1	0.65
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	0.19	5	0.95
Malheur A Alternative	Malheur	33.20	Middle calc-alkaline lava flows	0.26	1	0.26
Malheur A Alternative	Malheur	33.20	Lower arkosic sandstone and conglomerate	0.41	3	1.23
Malheur A Alternative	Malheur	33.20	Lower calc-alkaline lava flows	0.44	1	0.44
Malheur A Alternative	Malheur	33.20	Middle calc-alkaline lava flows	0.18	1	0.18
Malheur A Alternative	Malheur	33.20	Lower arkosic sandstone and conglomerate	0.09	3	0.28
Malheur A Alternative	Malheur	33.20	Middle calc-alkaline lava flows	1.24	1	1.24

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	1.13	5	5.64
Malheur A Alternative	Malheur	33.20	Middle calc-alkaline lava flows	0.33	1	0.33
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.32	3	0.95
Malheur A Alternative	Malheur	33.20	Lower tuffaceous sedimentary rocks	0.15	3	0.46
Malheur A Alternative	Malheur	33.20	Middle calc-alkaline lava flows	0.07	1	0.07
Malheur A Alternative	Malheur	33.20	Landslides	0.16	2	0.32
Malheur A Alternative	Malheur	33.20	Lower tuffaceous sedimentary rocks	0.66	3	1.99
Malheur A Alternative	Malheur	33.20	Tuffaceous siltstones, tuffs, and nonwelded ash-flow tuff	0.42	4	1.66
Malheur A Alternative	Malheur	33.20	Middle calc-alkaline lava flows	0.15	1	0.15
Malheur A Alternative	Malheur	33.20	Tuffaceous siltstones, tuffs, and nonwelded ash-flow tuff	0.44	4	1.77
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.45	3	1.36
Malheur A Alternative	Malheur	33.20	Lower arkosic sandstone and conglomerate	0.11	3	0.33
Malheur A Alternative	Malheur	33.20	Terrace gravels and alluvial fan deposits	0.03	3	0.09
Malheur A Alternative	Malheur	33.20	Lacustrine sediments	0.28	5	1.42
Malheur A Alternative	Malheur	33.20	Tuffaceous siltstones, tuffs, and nonwelded ash-flow tuff	0.21	4	0.84
Malheur A Alternative	Malheur	33.20	Middle calc-alkaline lava flows	0.07	1	0.07
Malheur A Alternative	Malheur	33.20	Tuffaceous siltstones, tuffs, and nonwelded ash-flow tuff	0.17	4	0.68
Malheur A Alternative	Malheur	33.20	Lower tuffaceous sedimentary rocks	0.94	4	3.78
Paleontological Sensitivity Ranking					2.87	98.26
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.42	5	2.12
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	1.39	3	4.16
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.05	5	0.23
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Alluvium	0.40	3	1.20
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.96	5	4.78
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	0.95	3	2.85
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.12	5	0.62
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Alluvium	0.32	3	0.96
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.54	5	2.69
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	1.07	3	3.22
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.07	5	0.37
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	0.60	3	1.80
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Alluvium	0.11	3	0.34
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	0.16	3	0.48
Proposed Action Compared to Double Mountain Alternative	Malheur	7.39	Alluvium	0.21	3	0.64
Paleontological Sensitivity Ranking					3.80	26.48

Route Name	County	Segment Length (miles)	Formation Name	Miles Crossed	Estimated Potential Fossil Yield	Fossil Sensitivity
Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.22	5	1.10
Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	0.26	3	0.79
Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.09	5	0.43
Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	0.81	3	2.44
Double Mountain Alternative	Malheur	7.39	Alluvium	0.14	3	0.42
Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	0.24	3	0.73
Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.60	5	2.99
Double Mountain Alternative	Malheur	7.39	Alluvium	0.33	3	0.98
Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.58	5	2.89
Double Mountain Alternative	Malheur	7.39	Upper calc-alkaline rhyolite and dacite flows and domes	0.17	1	0.17
Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	1.47	3	4.40
Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.59	5	2.97
Double Mountain Alternative	Malheur	7.39	Alluvium	0.11	3	0.33
Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.04	5	0.22
Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	0.76	3	2.28
Double Mountain Alternative	Malheur	7.39	Lacustrine sediments	0.10	5	0.49
Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	0.57	3	1.72
Double Mountain Alternative	Malheur	7.39	Alluvium	0.10	3	0.30
Double Mountain Alternative	Malheur	7.39	Terrace gravels and alluvial fan deposits	0.07	3	0.20
Double Mountain Alternative	Malheur	7.39	Alluvium	0.14	3	0.41
Paleontological Sensitivity Ranking					3.60	26.26

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Table B.1-3. Summary of Fossil Sensitivities and Average Potential Fossil Yields

Route Name	County	Total Miles	Fossil Sensitivity	Average Potential Fossil Yield
Proposed Action	Baker	69.18	185.13	2.68
Proposed Action	Malheur	72.00	225.11	3.13
Proposed Action	Morrow	46.83	116.97	2.50
Proposed Action	Owyhee	23.82	86.60	3.63
Proposed Action	Umatilla	49.46	104.30	2.11
Proposed Action	Union	39.79	73.82	1.86
Proposed 138/69-kV Rebuild	Baker	5.27	15.42	2.93
Total Proposed Action		306.34	807.35	18.83
Proposed Action and Alternatives to Substation Comparisons				
Proposed Action Compared to Horn Butte Alternative	Morrow	34.12	101.05	2.96
Horn Butte Alternative	Morrow	27.50	81.19	2.95
Proposed Action Compared to Longhorn Alternative	Morrow	34.12	101.05	2.96
Longhorn Alternative	Morrow	18.44	55.32	3.00
Longhorn Variation	Morrow	22.35	67.05	3.00
Comparison of Proposed Action and Alternatives				
Proposed Action Compared to Glass Hill Alternative	Union	7.54	11.56	1.53
Glass Hill Alternative	Union	7.51	10.12	1.35
Proposed Action Compared to Timber Canyon Alternative	Baker	46.33	124.84	2.69
Timber Canyon Alternative	Union/Baker	61.53	122.25	1.99
Proposed Action Compared to Flagstaff Alternative	Baker	14.15	31.66	2.24
Flagstaff Alternative including 230-kV Rebuild	Baker	15.06	41.07	2.73
Proposed Action Compared to Burnt River Mountain Alternative	Baker	16.83	57.06	3.39
Burnt River Mountain Alternative	Baker	16.77	46.35	2.76
Proposed Action Compared to Tub Mountain South Alternative	Baker/Malheur	34.21	97.47	2.85
Tub Mountain South Alternative	Baker/Malheur	34.55	127.37	3.69
Proposed Action Compared to Willow Creek Alternative	Baker/Malheur	30.21	85.14	2.82
Willow Creek Alternative	Baker/Malheur	24.60	91.50	3.72
Proposed Action Compared to Malheur S Alternative	Malheur	30.51	106.90	3.50
Malheur S Alternative	Malheur	33.64	96.16	2.86
Proposed Action Compared to Malheur A Alternative	Malheur	30.51	106.90	3.50
Malheur A Alternative	Malheur	33.20	97.31	2.93
Proposed Action Compared to Double Mountain Alternative	Malheur	7.36	26.40	3.59
Double Mountain Alternative	Malheur	7.39	26.26	3.56

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