APPENDIX F - VISUAL RESOURCE INVENTORY AND SCENIC QUALITY ANALYSIS

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1.0 INTRODUCTION

The Bureau of Land Management (BLM) manages visual resources through the use of Visual Resource Management (VRM) objectives, which are based in part on a visual resource inventory process (VRI) conducted through a combination of map analyses and fieldwork. Section 3.14, Visual Resources, of the Draft Environmental Impact Statement (EIS) for the Ray Mine tailings storage facility (TSF) describes the VRM and VRI process. Since the 1989 Phoenix Resource Management Plan did not include a VRI analysis or VRM objectives, the purpose of this analysis is to establish VRI classifications under baseline conditions for BLM-managed lands within the Ripsey Wash and Hackberry Gulch TSF sites. The analysis is based on the methodology provided by BLM Manual H-8410-1 (BLM 1986a).

The analysis area for the Visual Resource Inventory consists of the two scenic quality rating units (SQRUs) containing the TSF alternatives and the adjacent SQRUs, up to three miles away from project features, including the stormwater diversion channels, relocated Florence-Kelvin Highway, and realigned Arizona Trail.

2.0 SCENIC QUALITY RATING

SQRUs within the analysis area were delineated based on similar landscape characteristics, including topography, color variety, and cultural modifications as shown on **Figure F-1, Scenic Quality Ratings**. The SQR was then determined based on criteria provided in Handbook H-8410-1. **Table F-1, Scenic Quality Worksheet**, provides the ratings assigned each SQRU for the factors specified in H-8410-1 and the final SQR assigned to each unit.

3.0 SENSITIVITY LEVEL AND DISTANCE ZONES ANALYSES

The sensitivity analysis was based on a review of the sensitive travel corridors, key observation points (KOP's) and recreational use areas identified as part of the DEIS visual and recreation analyses. The VRI analysis area contains three travel corridors that traverse BLM-managed lands and are used for recreational activities or for access to recreation lands, the Florence-Kelvin highway, the Arizona Trail, and State Route 177. The six key observation points (KOP's) used in the Draft EIS visual resource analysis are all located within these corridors. In addition to the three travel corridors, the sensitivity level analysis evaluated the adjacent public lands used for dispersed recreation.

Table F-2, Sensitivity Level Analysis, provides the results of the sensitivity level analysis, based on criteria provided in H-841-1. The Arizona Trail was assigned a high rating due to its importance; other sensitive travel corridors and use areas were assigned a moderate sensitivity rating.

The delineation of sensitivity level rating (SLR) units was combined with the distance zone delineation since the extent of each SLR unit would be influenced by the seen areas from each sensitive resource. The distance zone delineation focused on the Arizona Trail due to its high sensitivity rating. The distance zones from a 37-mile section of trail were delineated in order to capture the foreground/middleground views from all portions of the trail that might fall within the analysis area. See **Figure F-2, Visibility from Arizona National Scenic Trail.** Seen areas from the trail beyond the five mile distance corridor and within the analysis area were mapped as background distance zone. The remaining lands were mapped as unseen area. **See Figure F-3, Arizona National Scenic Trail Distance Zones.**

Seen/unseen areas from the other travel corridors and use areas were not delineated for the following reasons: 1) the dispersed recreation lands extend throughout the public lands in the analysis area and

thus their foreground-middleground distance zone would extend throughout the analysis area; 2) These lands and the other travel corridors (Florence-Kelvin highway and SR 177) are all rated of moderate sensitivity; and 3) thus these areas would ultimately have the same VRI Classes as the background or seldom seen areas from the Arizona Trail (**Table F-3, Visual Resource Inventory Classes**).

4.0 VRI CLASSES

The VRI classification for the analysis area was developed by overlaying the distance zones/sensitivity level delineation with the SQR delineation to determine the appropriate VRI class for each BLM parcel. Visual Resource Inventory Classes were then assigned for each BLM parcel depending on the parcel's SQR, sensitivity level, and distance zone. See **Table F-3, Visual Resource Inventory Classes** and **Figure F-4, Visual Resource Inventory (VRI) Classes** provide the resulting VRI Classes.

Table F-4-1, Scenic Quality Worksheet

Scenic Quality Rating Units		Landform	Vegetation	Water	Color	Influence of Adjacent Scenery	Scarcity	Cultural Modifi-cations	TOTAL SCORE	RATING	Notes
1	North of Gila River	4	1	0	4	2	3	0	14	A	Steep, dissected topography with red and purple geology and rock faces.
2	Gila River Floodplain	1	4	4	4	2	5	1	21	A	Cultural modifications (Historic Florence-Kelvin Highway Bridge, Railroad bridge, and A-Diamond Ranch) add favorably to visual variety. Diversity of vegetation types and and color and presence of water contribute to its scarcity.
3	Golden Bell Mine Area	2	1	0	2	2	1	-1	7	C	Combination of steep topography and flat bajadas. Brown and tan colors. Similar to other units in terms of colors and vegetation. Cultural modifications include high voltage transmission line, radio tower, and Golden Bell Mine.
4	Southwest of Ripsey Wash	2	1	0	2	2	1	-1	7	C	Combination of steep topography and flat bajadas. Brown and tan colors. Cultural modifications include Florence-Kelvin Highway.
5	Ripsey Wash	2	1	0	2	2	1	-1	7	C	Wide wash bounded by rolling topography. Brown and tan are dominant colors. Cultural modifications include Arizona Trail, Florence-Kelvin Highway and SCIP Transmission line.
6	Tortilla Mountains	4	1	0	2	2	3	-1	11	B	Relatively steep topography with considerable variety. Some exposed rock faces. Brown and tan are dominant colors. Cultural modifications include Riverside and Arizona Trail.
7	Dripping Spring Mountains	3	1	0	3	2	2	0	11	B	Unit includes lower elevations and foothills of the Dripping Springs Mountains, containing some interesting topographic features. Colors include red and purple rock formations.
8	Hackberry Gulch	2	1	0	2	2	1	-2	6	C	Bajada topography typical of the region with drainages become more pronounced closer to the Dripping Springs Mountains. Color dominated by browns and tans. Cultural modifications include Elder Gulch, which forms edge of SQRU, Gray Horse Mine, and SR 177.

Scenic Quality Rating Units		Landform	Vegetation	Water	Color	Influence of Adjacent Scenery	Scarcity	Cultural Modifi-cations	TOTAL SCORE	RATING	Notes
9	Kearny Bajada	1	1	0	2	2	1	-1	6	C	Bajada topography and vegetation typical of the region. Color dominated by browns and tans. Cultural modifications include Kearny and SR 177.
10	Ray Mine	3	0	0	3	3	4	-3	8	C	Dramatic topography and color variation created by mine pit. Little vegetation. Ray mine is a major cultural modification, but is of interest to some people.

Notes:

- Methodology based on BLM, 1986a.
- Scenic quality classification criteria:
  - Score of 11 or less = C rating
  - Score of 12 - 18 = B rating
  - Score of 19 or more = A rating
- All units except the Ray Mine were given a 2 rating for "Influence of Adjacent Scenery" because they all have mountainous scenery in the background which provides a moderate degree of visual variety, which would warrant a Level 3 rating, but they also have intermittent views of the Ray Mine, thus bringing the rating down to 2. The Ray Mine was given a 3 for this factor because its adjacent scenery contains topographic variety, but without the major modification of the mine.

Table F-4-2, Sensitivity Level Analysis

Sensitivity Rating Units						
	Florence-Kelvin Highway Corridor	**Arizona Trail Corridor**	**Recreation Lands outside Highway and Arizona Trail Corridors**	**SR 177**	**Communities of Kelvin, Riverside, and Kearny**	**Ray Mine**
Type of User	M	H	H	L	M	L
Amount of Use	M	L	M	H	M	M
Public Interest	M	H	M	M	M	L
Adjacent Land Use	L	L	L	L	L	L
Special Areas	L	H	L	M	L	L
Other Factors	N/A	N/A	N/A	N/A	N/A	N/A
Overall Rating	M	H	M	M	M	L
Explanation	Public interest is moderate since some of the use is for access to dispersed recreation and the Arizona Trail.	Designated National Scenic Trail.	Moderate public interest in scenic quality since it is used by local residents and visitors for dispersed recreation activities.	Designated State Scenic Corridor	These communities have relatively low population, but since residents experience the view on a daily basis, scenic views are likely of concern.	People working in or visiting the Ray Mine area likely have relatively low concern for scenery.

Note:
Adjacent land uses not a big issue due to remote nature of the study area and thus this factor is not given as much weight as others in the overall rating.

Table F-3, Visual Resource Inventory Classes

VQRU	Sensitivity Level Rating Units									
	Florence-Kelvin Highway		ANST		Recreation Lands outside Highway and Trail Corridors		SR 177		Communities of Kelvin, Riverside, and Kearny	
	FG/MG	BG	FG/MG	BG	FG/MG	BG	FG/MG	BG	FG/MG	BG
1	III	IV	II	III	III	IV	III	IV	III	IV
2	III	IV	II	III	III	IV	III	IV	III	IV
3	IV	IV	III	IV	IV	IV	IV	IV	IV	IV

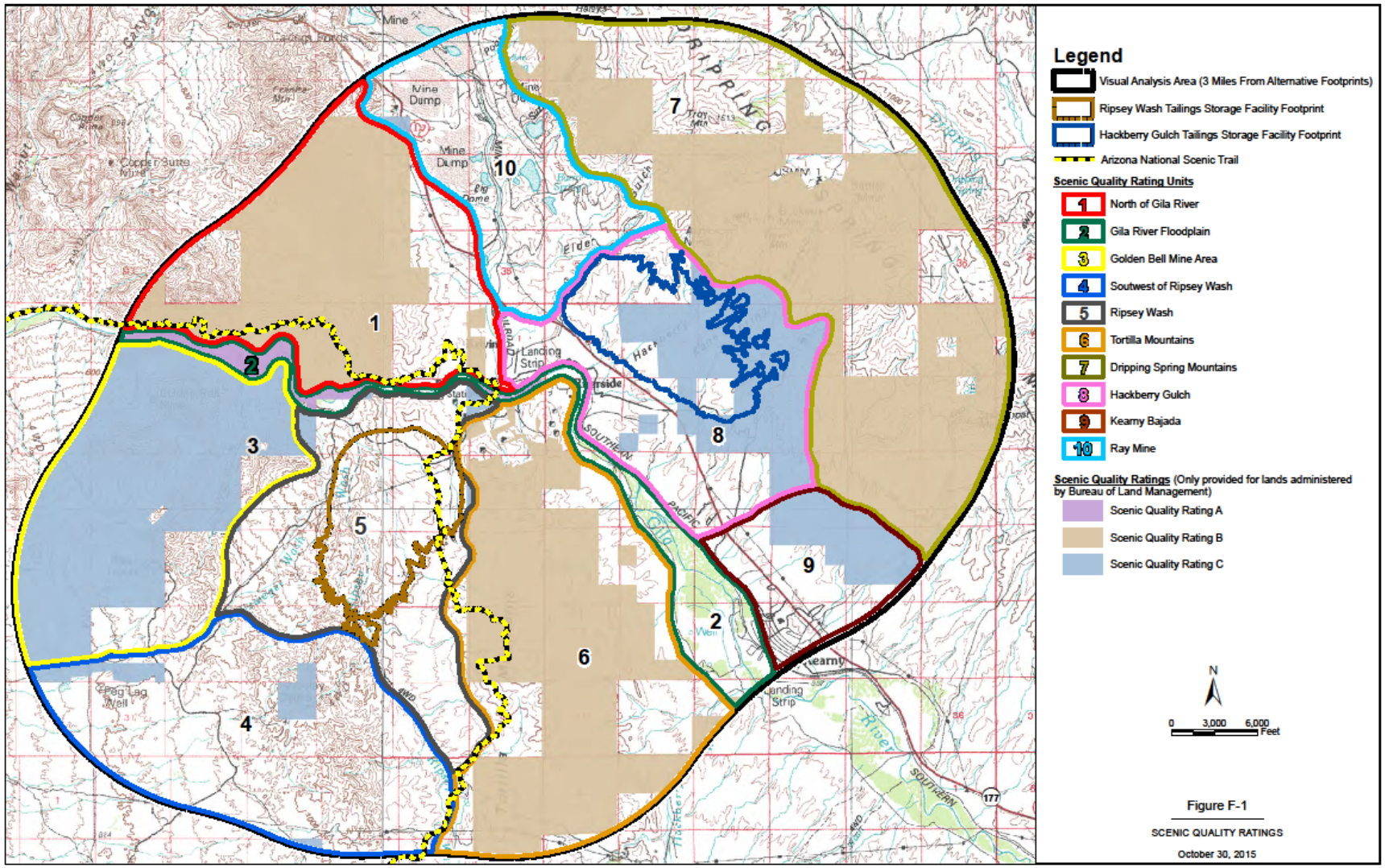
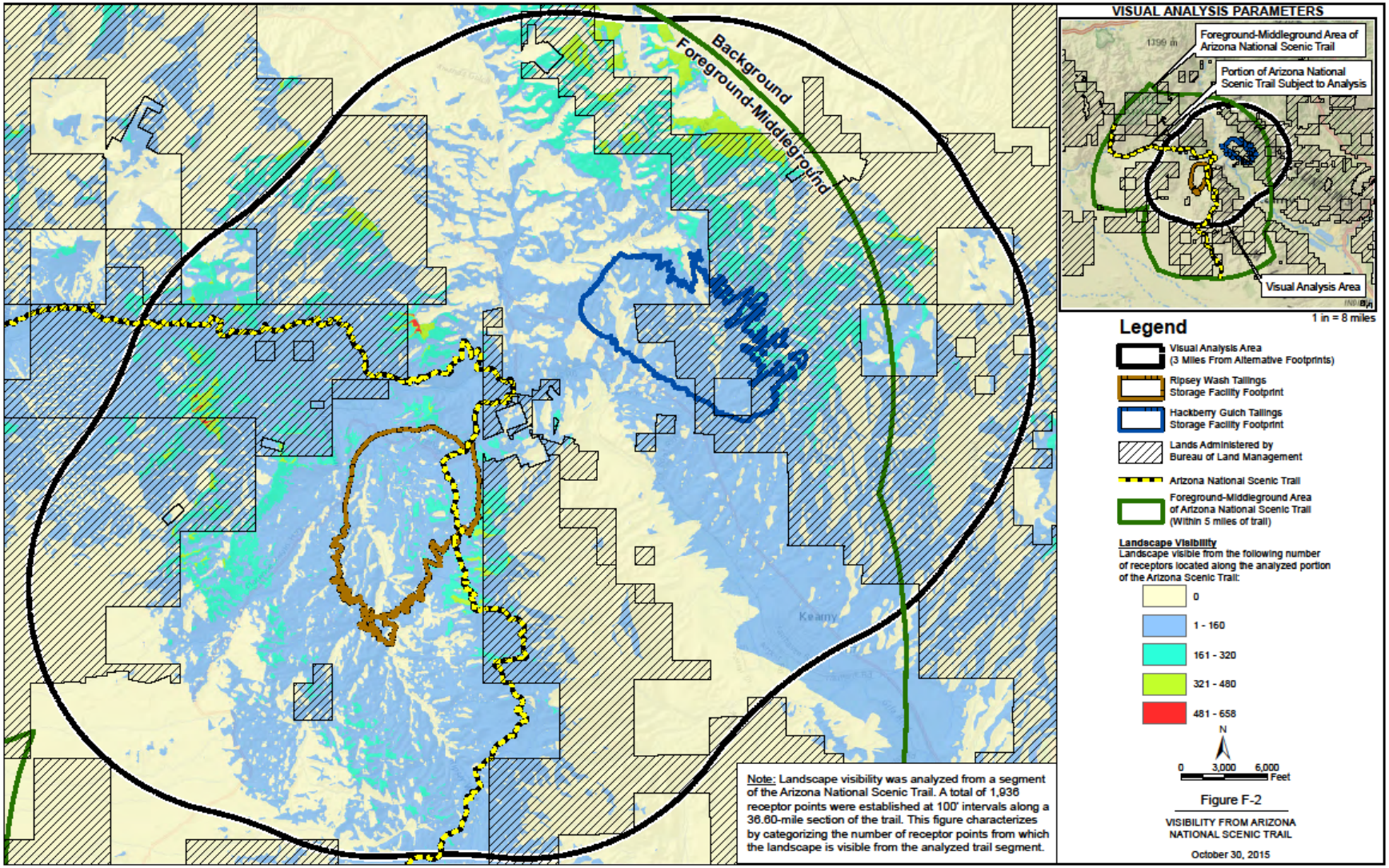


Figure F-1

SCENIC QUALITY RATINGS

October 30, 2015


Background
Foreground-Middleground
VISUAL ANALYSIS PARAMETERS
Foreground-Middleground Area of Arizona National Scenic Trail
Portion of Arizona National Scenic Trail Subject to Analysis
Visual Analysis Area
1 in = 8 miles
Legend
Visual Analysis Area (3 Miles From Alternative Footprints)
Ripsey Wash Tailings Storage Facility Footprint
Hackberry Gulch Tailings Storage Facility Footprint
Lands Administered by Bureau of Land Management
Arizona National Scenic Trail
Foreground-Middleground Area of Arizona National Scenic Trail (Within 5 miles of trail)
Landscape Visibility
Landscape visible from the following number of receptors located along the analyzed portion of the Arizona Scenic Trail:
0
1 - 160
161 - 320
321 - 480
481 - 658
N
0 3,000 6,000 Feet
Note: Landscape visibility was analyzed from a segment of the Arizona National Scenic Trail. A total of 1,936 receptor points were established at 100' intervals along a 36.60-mile section of the trail. This figure characterizes by categorizing the number of receptor points from which the landscape is visible from the analyzed trail segment.
Figure F-2
VISIBILITY FROM ARIZONA NATIONAL SCENIC TRAIL
October 30, 2015