

Moab UMTRA

Uranium Mill Tailings Remedial Action



**July
2020**

Rail Bench from rim
of Poison Spider
Mesa above the
Moab UMTRA
Project Site.

MTPSC Status Update
by Russ von Koch
Grand County UMTRA Liaison



Highlights



- **Operations continuing with safety modifications during Covid-19**
- **Continued 4 trains per week to CJ during the 2nd calendar quarter**
- **April 82 k tons, May 69 k tons & June 87 k tons ← 2nd best since 9/2014**
- **Moved almost 67% of the est. total tonnage since project inception**

Observations provided by Grand County UMTRA Liaison on behalf of the Moab Tailings Project Steering Committee, as established by Grand County Resolution 3198.



Tailings Removed & Budget History

(Millions of Tons & Dollars per Year)

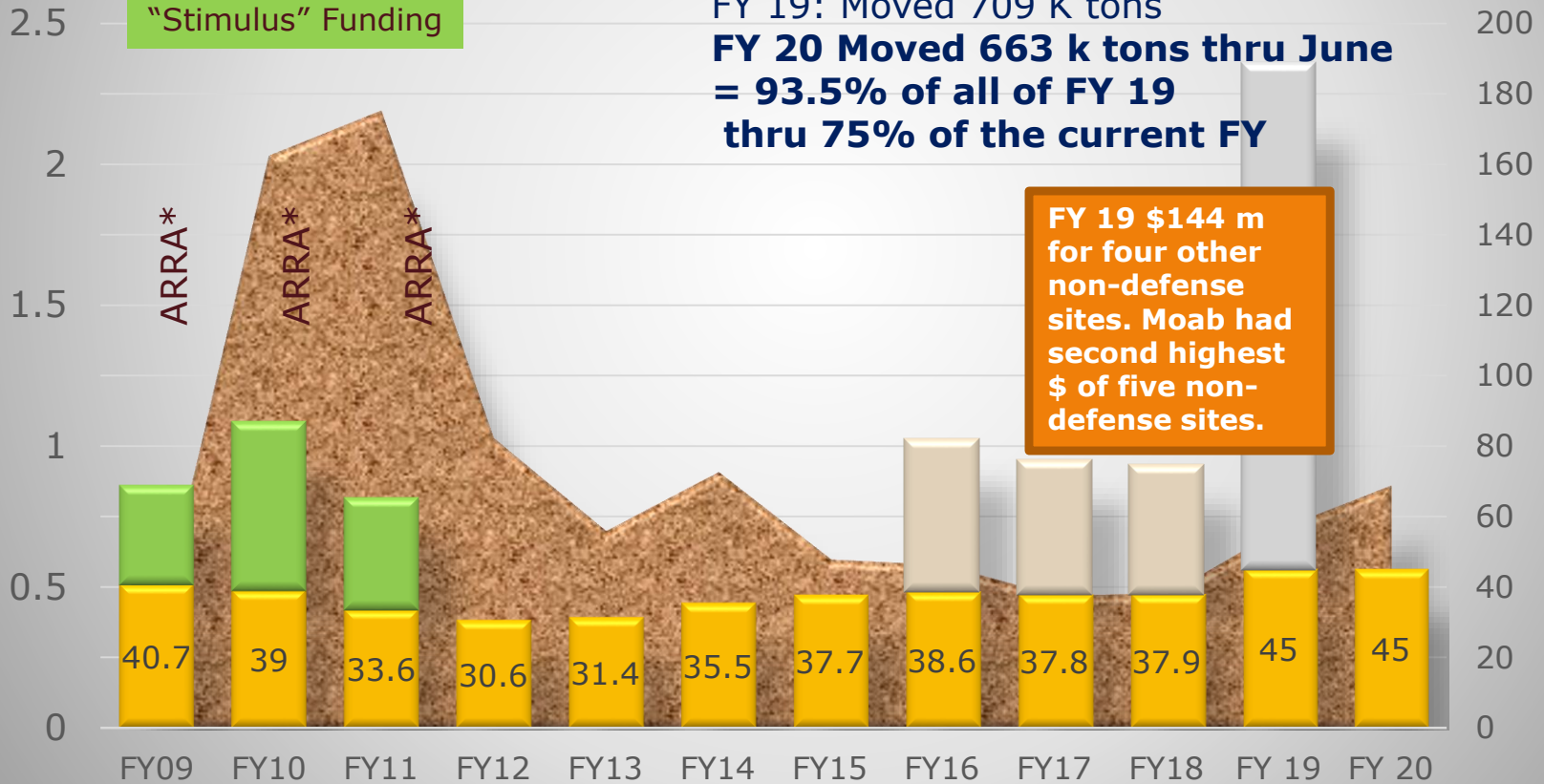
* American Recovery and Reinvestment Act of 2009, aka "Stimulus" Funding

Moab Regular Funding (Million \$)

FY 18: Moved 469 K tons

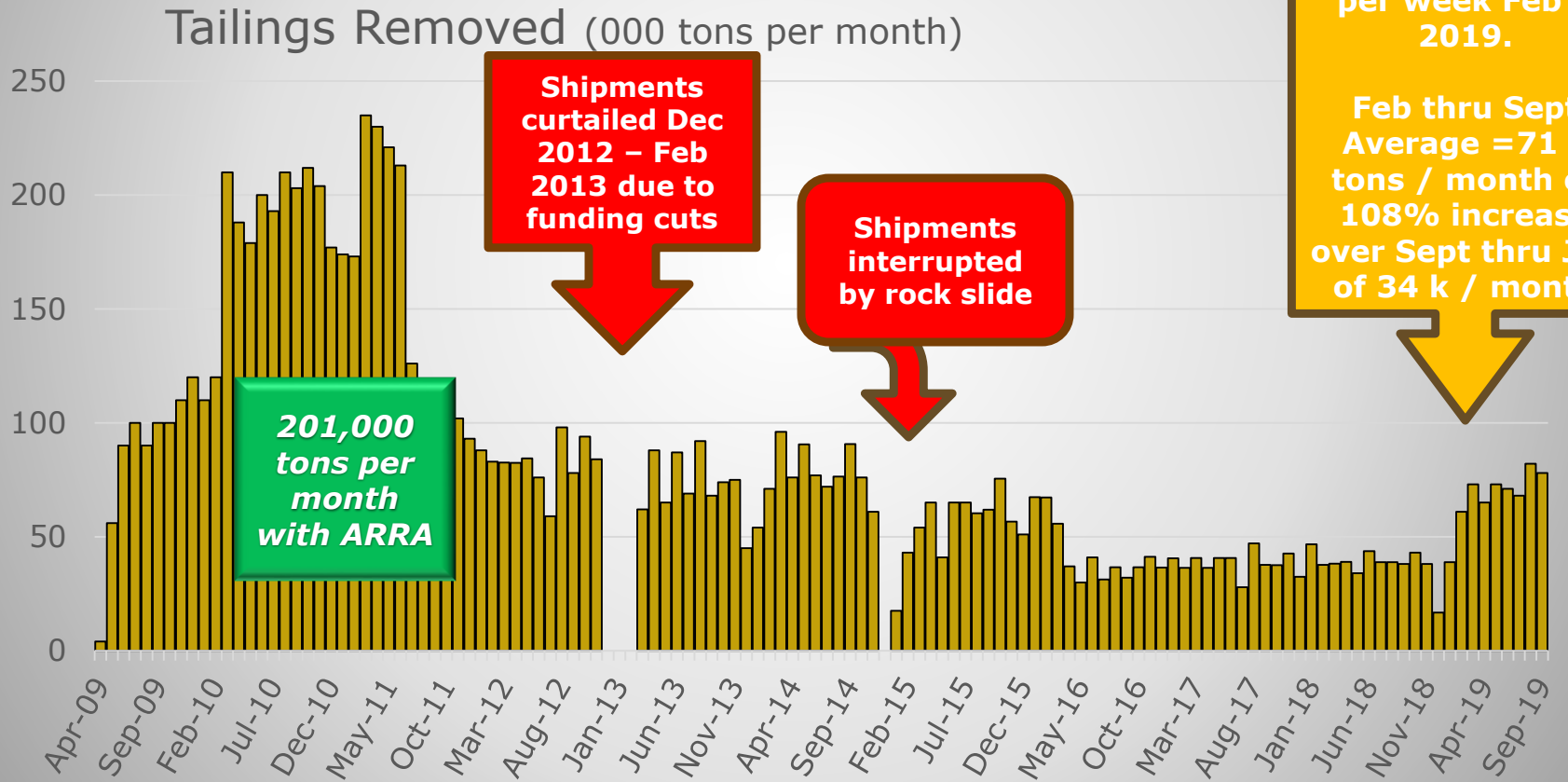
FY 19: Moved 709 K tons

FY 20 Moved 663 k tons thru June = 93.5% of all of FY 19 thru 75% of the current FY



Tailings shipment and funding information provided by Moab UMTRA. Other observations provided by Grand County UMTRA Liaison on behalf of the Moab Tailings Project Steering Committee, as established by Grand County Resolution 3198. * ARRA \$ all came in FY09. **Liaison estimated FY20 tonnage at 862,000 tons by combining CY 19 and FY 20 months.**

➤ **Monthly Tonnage Shipments Slide 1 of 2**
 ➤ **April 09 through September 2019**

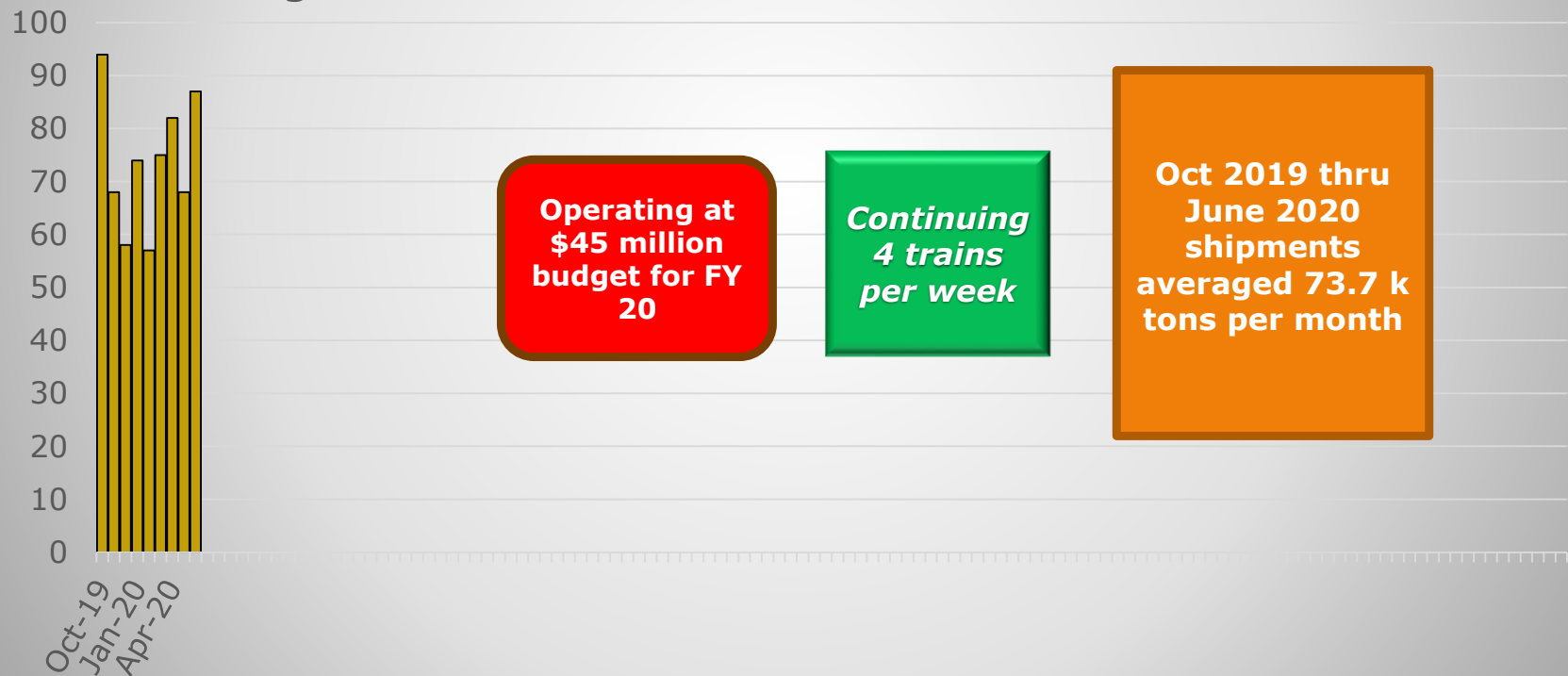


Tailings shipment and funding information provided by Moab UMTRA. Other observations provided by Grand County UMTRA Liaison on behalf of the Moab Tailings Project Steering Committee, as established by Grand County Resolution 3198.

➤ **Monthly Tons Slide 2 of 2 (Oct 2019 →)**

- **October Tonnage of 92,978**
- **Highest Since September 2014**

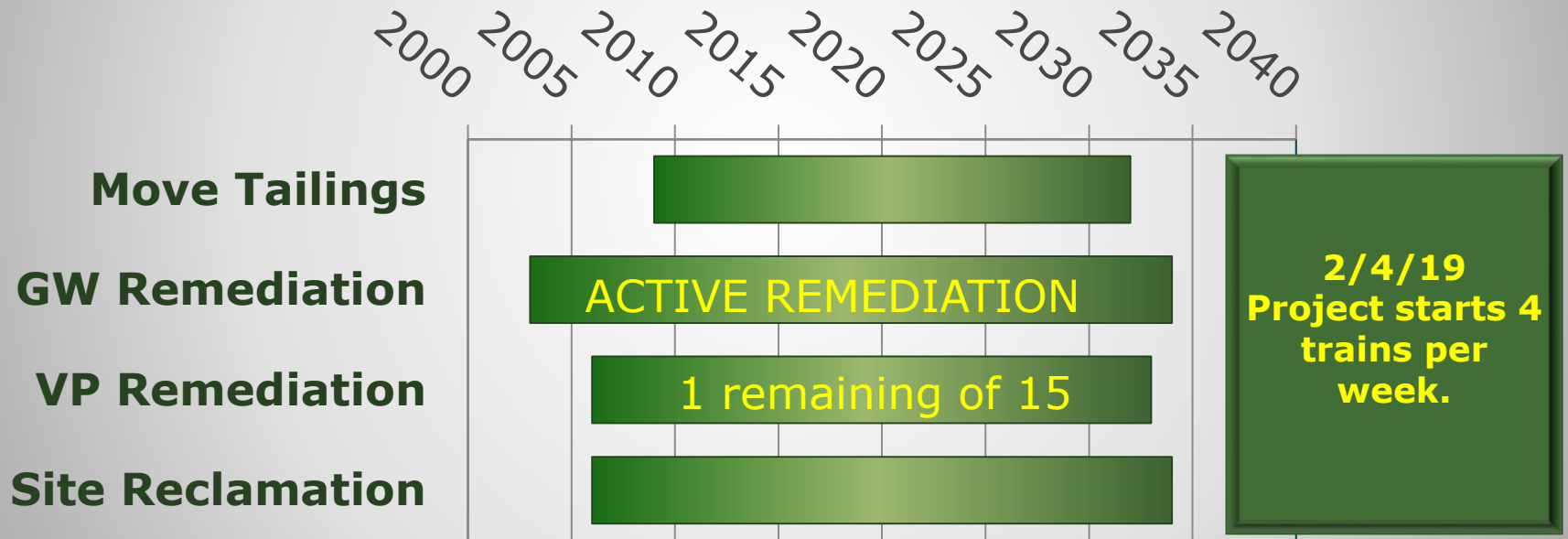
Tailings Removed (000 tons per month)



Tailings shipment and funding information provided by Moab UMTRA. Other observations provided by Grand County UMTRA Liaison on behalf of the Moab Tailings Project Steering Committee, as established by Grand County Resolution 3198.

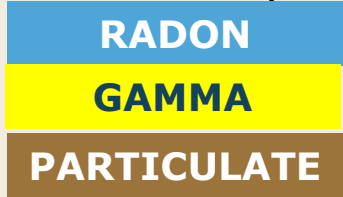
Main Project Goals

- Move tailings away from Colorado River
- Protect river by intercepting ground water contaminants
 - Remediate vicinity properties (VP)
- Reclaim project sites at Moab and Crescent Junction



CY18 tons (451.8) averaged 37.7 K /month
 CY19 tons (829.8) averaged 69.1 K /month

Per Cent of Allowable Impact



Guideline 3.7

Offsite radon not to exceed 3.0 pCi/L above background

2.5

Radon level at south boundary

Background 0.7

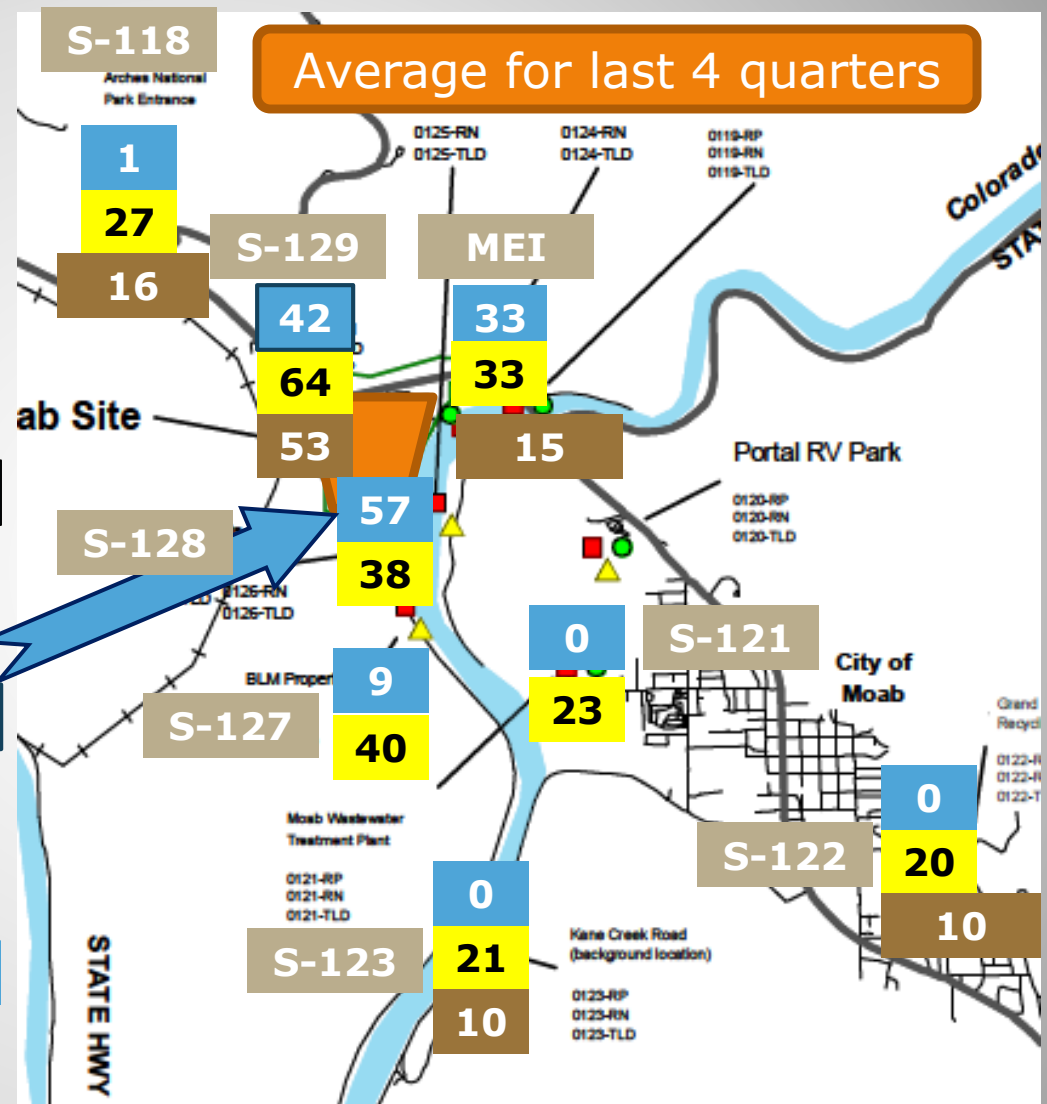
0

100%

60%

0%

Average for last 4 quarters



Impacts Around Moab: 19Q2-20Q1

pCi/L = picoCuries per Liter, radiation from Radon gas in the air, L4Q average

Per Cent of Allowable Impact

- RADON**
- GAMMA**
- PARTICULATE**

Average for last 4 quarters

mREM

192

100%

Gamma Guideline

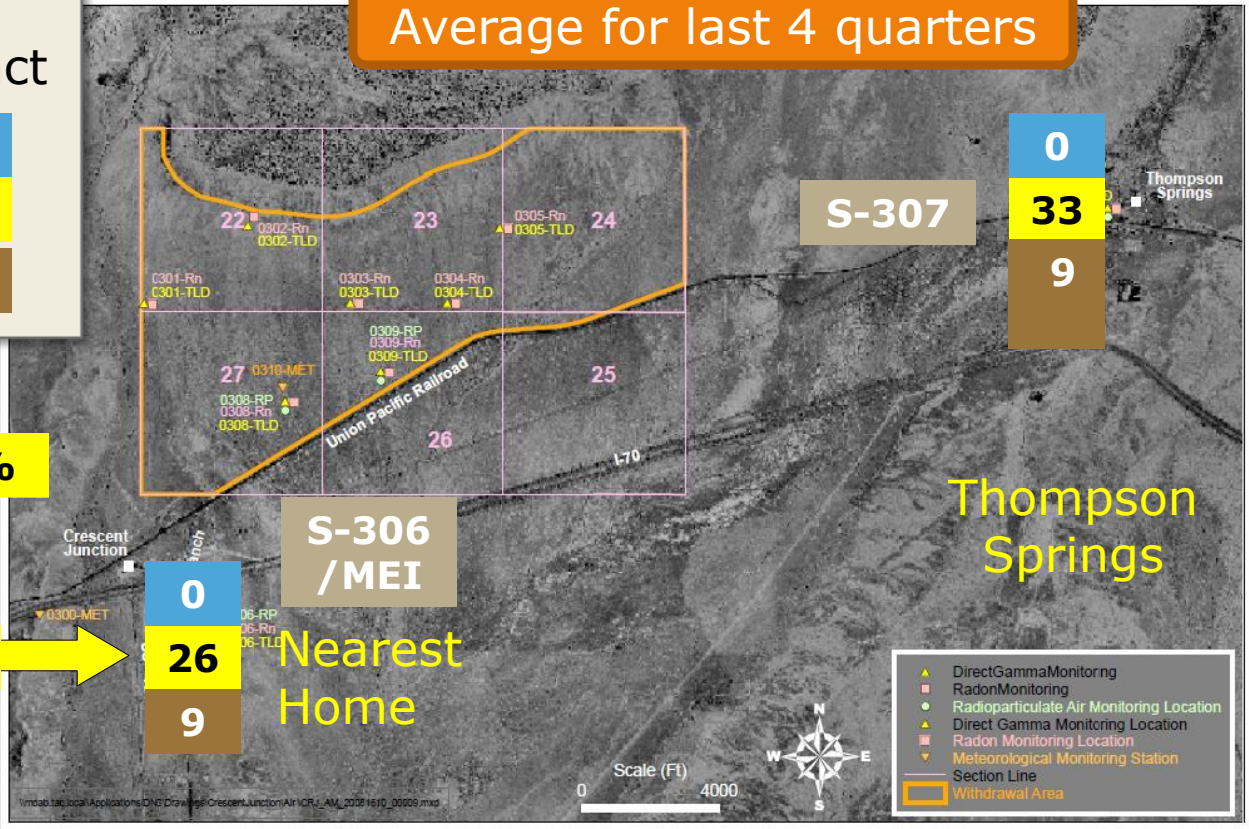
118

26%

0%

Background 92 mREM in CJ area

0



0
33
9

S-307

S-306 /MEI

Nearest Home

Thompson Springs

Guideline: Gamma not to exceed 100 mREM/yr above background.
Gamma total for last 12 months at nearest home was 118 mREM, or 26% above CJ background of 92 mREM.

Impacts Around CJ: 19Q1-19Q4

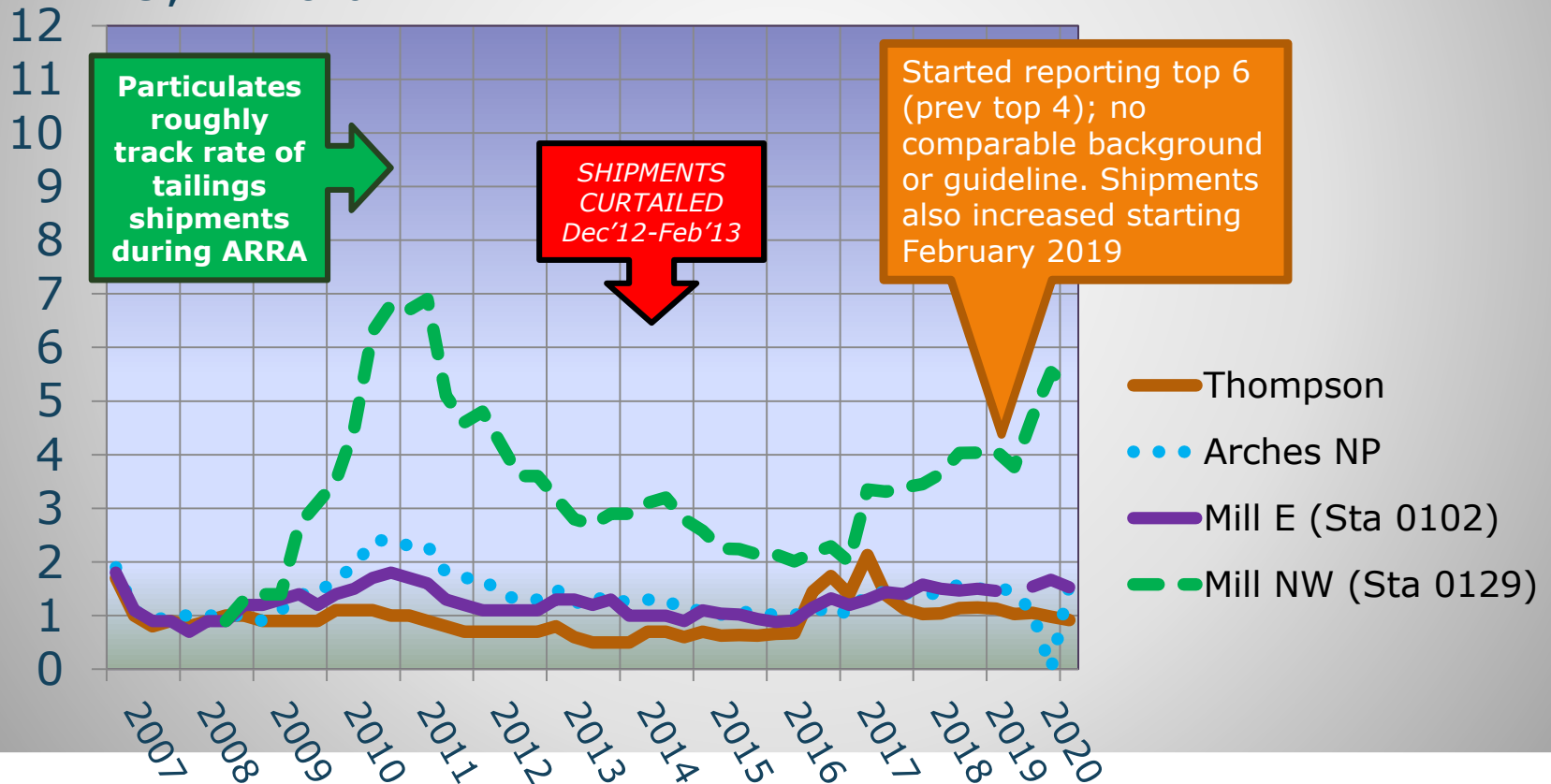
mREM = milli-Roentgen Equivalents in Man, biological dose equivalent, sum of L4Q

Airborne Radioparticulates

Total DCG for 19Q1 – 19Q4

Total mREM L4Q multiple vertical axis by 10 to convert to % of alim. i.e., 4 = 40%

DCG = Derived Concentration Guideline, a calculated estimate of radiation levels from radioparticulates



Environmental monitoring data provided by Moab UMTRA. Other observations provided by Grand County UMTRA Liaison on behalf of the Moab Tailings Project Steering Committee, as established by Grand County Resolution 3198.

Ground Water Remediation



Injection wells
between side channel
and Riverside Trail

Project reported totals of
over 940,000 pounds of ammonia
& more than 5,200 pounds of
uranium extracted as thru June 2020
(kept out of river)

- Extraction wells between pile and river intercept contaminated ground water
- Fresh water “curtain” injected when river is low
- Side channel habitat protected seasonally with added fresh water
- Suspended during CO River Flooding

- ACTIVE ground water remediation could continue 1-2 years after pile removed. Supplemental standards may be applied for PASSIVE remediation.

Well field data provided by Moab UMTRA. Other observations provided by Grand County UMTRA Liaison on behalf of the Moab Tailings Project Steering Committee, as established by Grand County Resolution 3198.



“Aerial” Views of the Moab UMTRA Project Area

Photos taken from Poison Spider Mesa 4/8/2020



**Pan of Project Site (center left)
and Moab Valley (right) with
Arches NP in Left Background**



**View of river side of Project Area (left), Colorado River (center), and Matheson Wetlands (right)
Marriott Hotels in distance (right)**



**Mill tailings (left) Above
Floodplain of the Colorado River**



**Entire Project Area Along Left Side of Colorado River
Matheson Wetlands Across River (right)
Arches National Park Shown Behind the Project Area**



Main Floodplain "Re-vegetation" Areas



**Close-up of a Portion of the Well Field
and Stream Channels**



**Location of Rail Bench
Above "Lidding" Area**



**Rail Bench Loading Area
Main Line (Left), Spur (Right)**



**Lidding and Un-lidding Building (front)
with Maintenance Building (behind)**



**Container Transfer Area
(center)**



**Project Entrance From US 191
and Adjacent Maintenance Area**



**Administration Area and Freshwater Pond
(middle right)**



Working "Face" of the Tailings Pile



**Conditioning Beds and Mill Debris
Areas to Left of Tailings Face**



**Container Loading (center right)
from NW Conditioning Beds**



**Close-up of Another
Container Loading Area**



**“Building Up” Conditioning Beds (right center)
(Not Easily Seen from Highways)**



**Loading Tailings Bound for the
Conditioning Beds from Base of Tailings Face**



**Close-up of Loading Area(right)
and Disking Step of Conditioning (left)**



**Close view of equipment used
to prepare conditioning beds**

To Learn More



- **Online**

- <https://gjem.energy.gov/moab/>
- GrandCountyUtah.net (“Moab UMTRA Project”)

- **Public meetings**

- *Moab Tailings Project Steering Committee, quarterly (Jan 28, May 26 (cancelled), July 28 and Oct 27, 2020)*
- *Site Futures Committee, 2013 and 2018*

- **UMTRA Reading Room (Library)**

- **Contact Grand County’s UMTRA Liaison**

- 259-1795 (working from home)
- rvonkoch@grandcountyutah.net

