

Local Involvement in Contaminated Sites Projects

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RIOA

- Labour
 - Assistant learns to sample soil, water (surface & ground), and sediment
 - Only short term for field work (1 – 4 weeks)
- Heavy Equipment
 - Usually need an excavator for digging test pits
 - Backfill if test pits need more added
 - Vehicle for getting around with supplies
- Accommodations
 - Out of town Consultants need somewhere to stay
- Knowledge
 - Of the way things work on each site (drainage to daily operations)
 - Any historical spills, accidents, or infrastructure (past or present)
 - Of community process & vision
 - Who knows what or who works where
 - Land-uses for scoring purposes (traditional activities)

Remedial Design

- Labour
 - Assistant learns (or refreshes) how to sample
 - Project Coordinator to attend meetings and liaise with C&C / Administration on decisions
- Heavy Equipment
 - Experience or qualified mechanic to audit condition
- Accommodations
- Knowledge
 - Input on how to remediate, or where to put biocell
 - Environmental info (SAR, fish habitat, migratory birds etc)
 - Gravel and backfill sources



Photo 4: Photo of borehole K-FL-1 installed along fuel distribution line extending from the bulk fuel storage facility to the Education Centre.



Photo 4: View of area of building crawlspace beneath interior AST.

Hard to
reach
places
need
careful
work



Photo 3: Photo of hand-auguring activities at Building 6. Note that the AST was temporarily removed from the wooden platform to facilitate installation of new weeping tiles around building.



Photo 4: Photo of drilling monitoring well MW205.



Photo 3: Facing north during excavation of J-TP3.



Photo 2: Facing north during excavation of C-TP11.



Photo 1 – View facing west showing location of test pit E3-TP1.

**Safety – open & deep holes;
releasing vapours & odours**

**Local
knowledge of
underground
service
locations an
asset**



Photo 2: Photo of local personnel collecting a water sample from monitoring well MW101.



Photo 4: Photo of manhole located between former building and shore of Attawapiskat Lake. Note that test pit TP110 was advanced along discharge pipe extending from former sewage plant to manhole.



Photo 3: Photo of investigation adjacent to concrete foundation associated with former sewage treatment plant building.



Photo 2: Photo of hand-augered borehole BH108 extended beneath abandoned building.



Photo 2: Facing west during advancement of A1-MW5.

Safety:
Heavy Equipment
working long
days in busy
places around
the community



Photo 1 – View facing southwest at Teacherage Unit's No's. 4, 5 & 6 and test pit D2-TP3 location.



Photo 3: Photo of drilling, test pitting and surveying activities completed at the site.



Photo 2 – View of hydrocarbon sheen in Eabamet Lake while collecting sediment sample A-SED1.



Photo 2 – View facing south at western property line and location of B-HA1.



Photo 3 – View facing south showing location of sediment sampling E1-SED1.

Tools of the trade



Photo 2: Photo of monitoring well MW102 installed between the bases of two ASTs.



Photo 1: Photo of monitoring well MW103.

Pre-Construction

- Labour
 - Security, if needed (usually school areas/times)
- Heavy Equipment
 - Excavator & Tandem Trucks for gravel/backfill hauling
 - Dozer and Loader for prepping biocell (typical for remediation in north)
 - Float trailers (moving buildings if not demolishing)
- Accommodations
- Knowledge
 - Inform when work is to be done (safest times)
 - Where to keep stock pile

Construction

- Labour
 - Site Supervisor
 - Coordinator
 - Financial
 - Assistant(s) / Labourer(s)
 - Security
 - Operators
- Heavy Equipment
 - All you've got and more
- Accommodations
- Knowledge
 - Safety first
 - Scheduling hauling traffic

After Construction

- Labour
 - Monitoring Assistant for sampling water
- Heavy Equipment
 - Excavator for tilling soil
- Knowledge
 - Best times for sampling
 - What to do with treated soil
 - How to use biocells for future projects (hopefully never need to!)



Biocells



Reorganized landfill & removed waste materials (scrap etc)

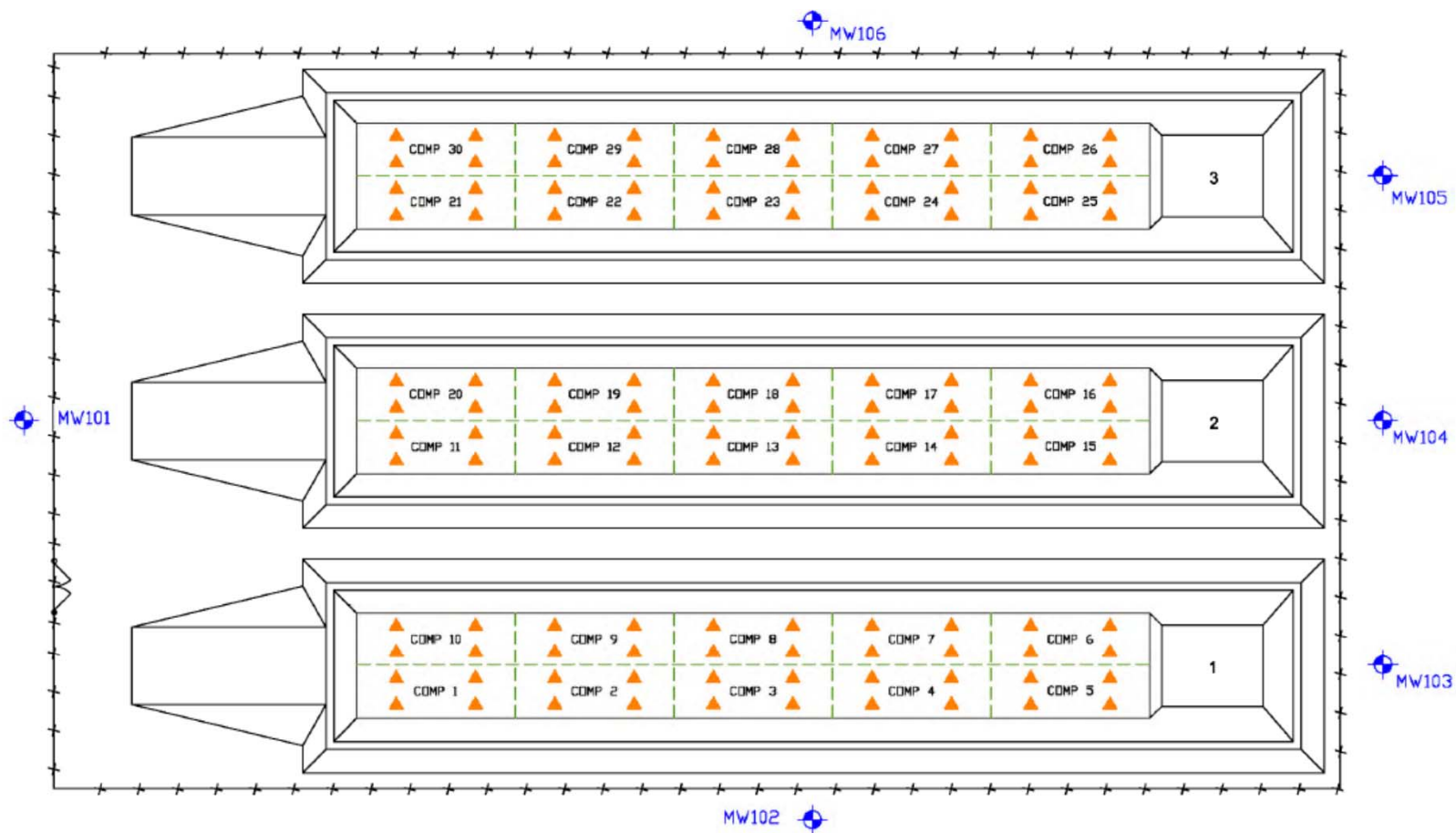







Need to keep tilling & sampling until clean



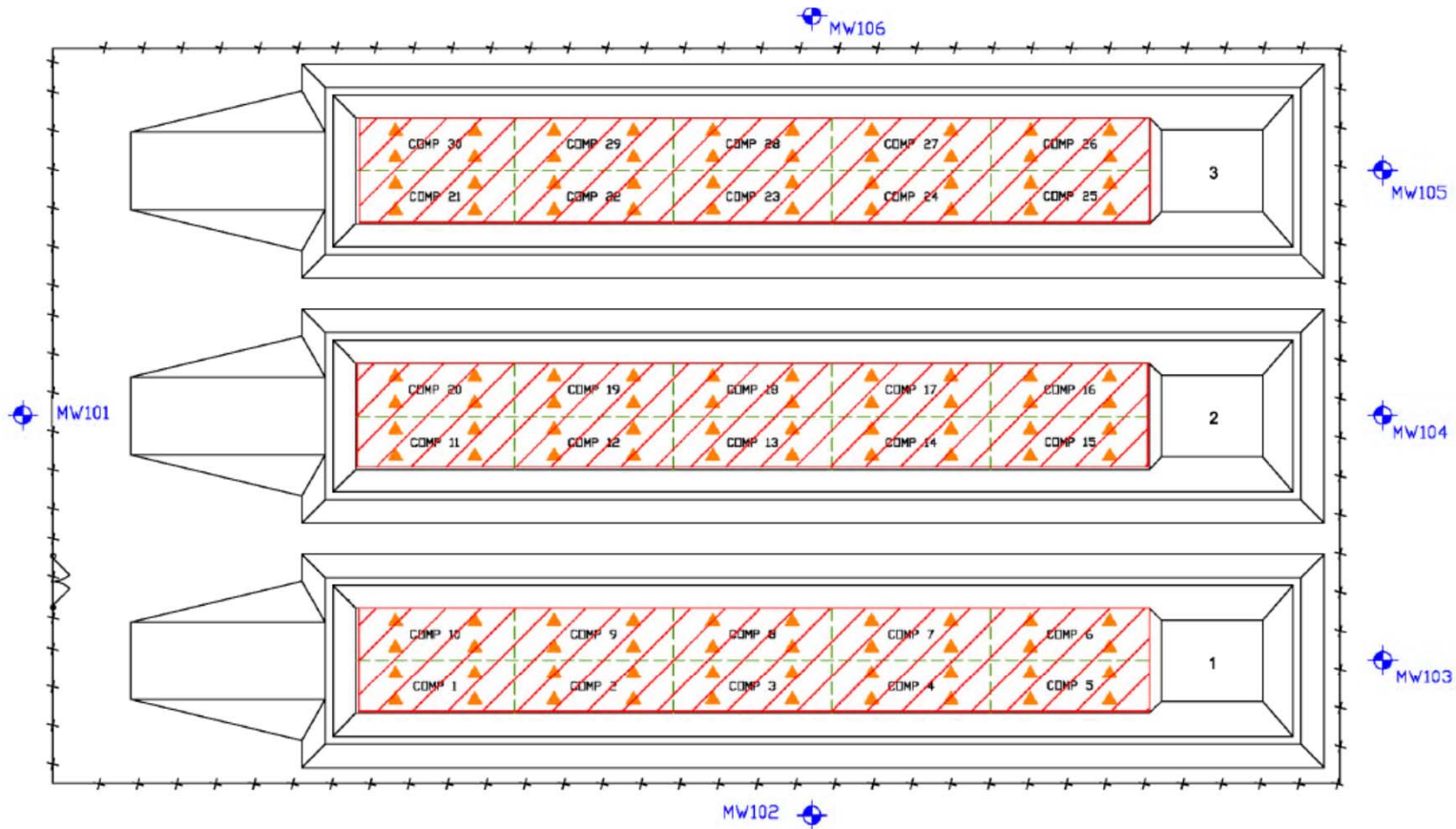
Photo 3: Photo of soil tilling activities completed at Cell 2 during the 2014 Treatment Season.







LEGEND

-  Sub-sample Location
-  Composite Sample Quadrant
-  Monitoring Well Location

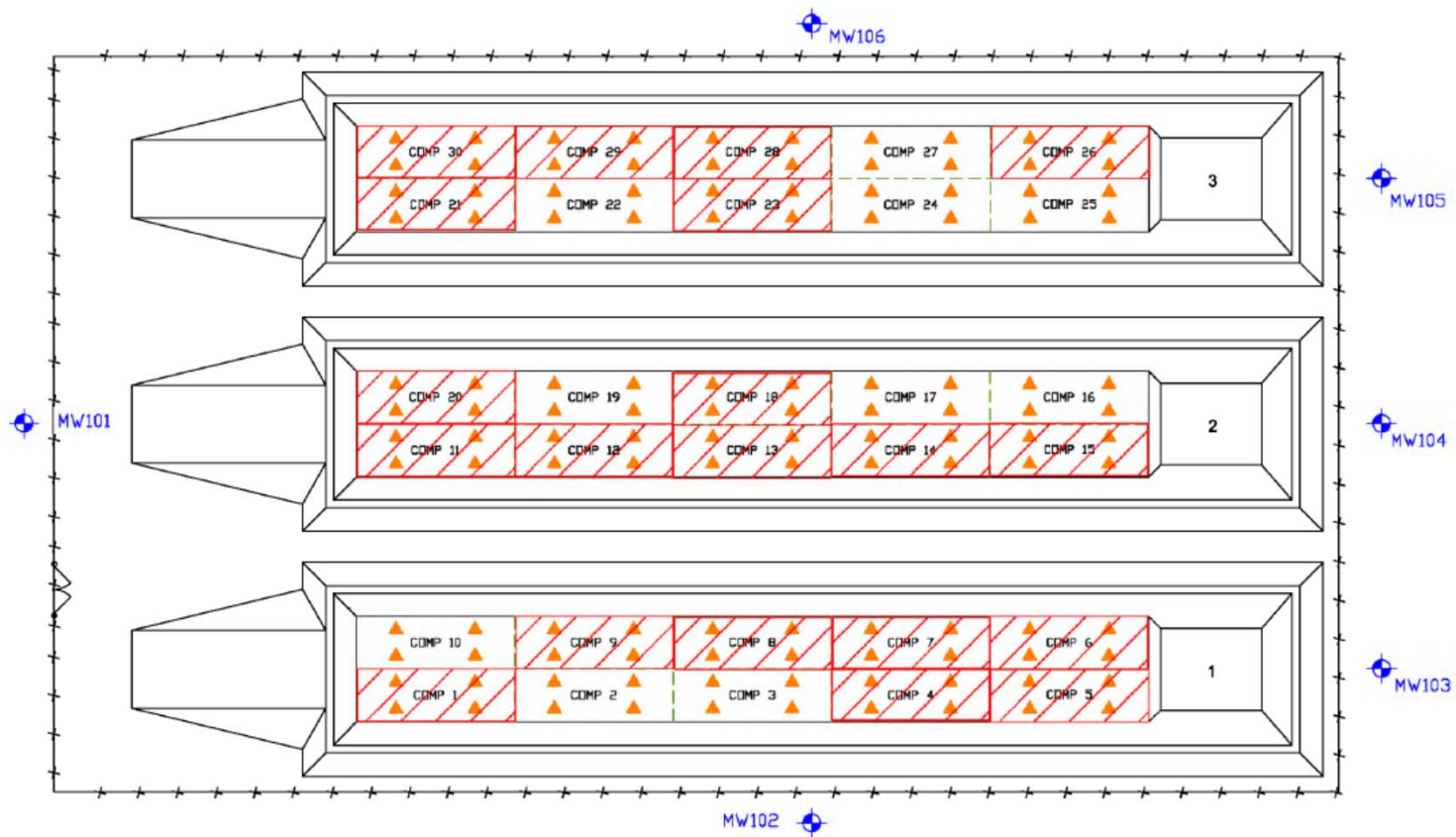
Biocell layout & sampling plan







LEGEND

-  Sub-sample Location
-  Composite Sample Quadrant
-  Monitoring Well Location
-  Exceeds Treatment Criteria

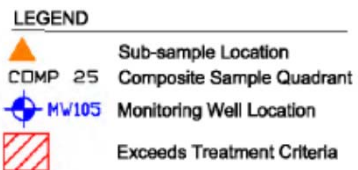
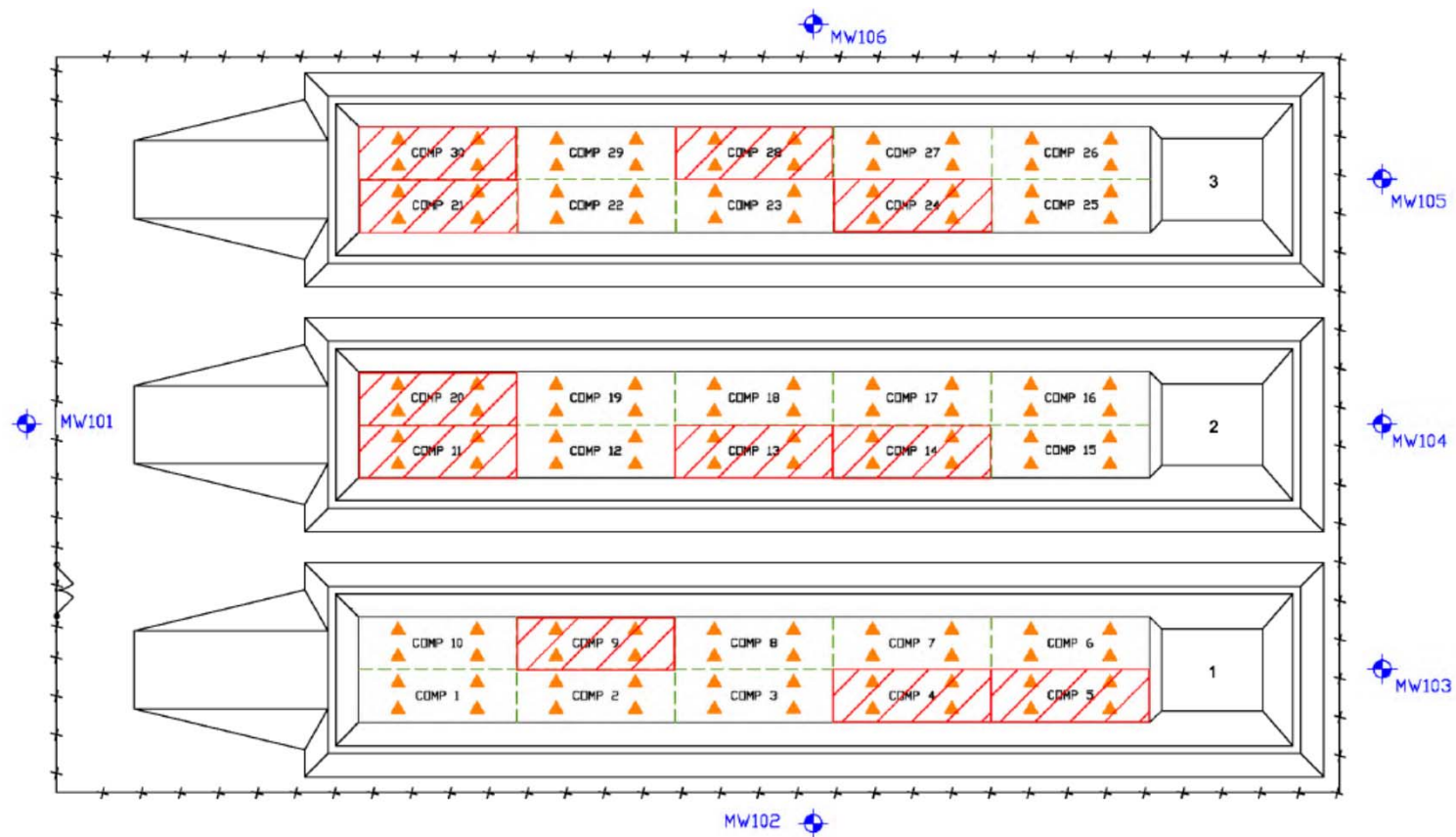
sampling – year 1



LEGEND

-  Sub-sample Location
-  Composite Sample Quadrant
-  MW105 Monitoring Well Location
-  Exceeds Treatment Criteria

sampling – year 3



sampling – year 3 + 2 months



Close to 30,000m³



