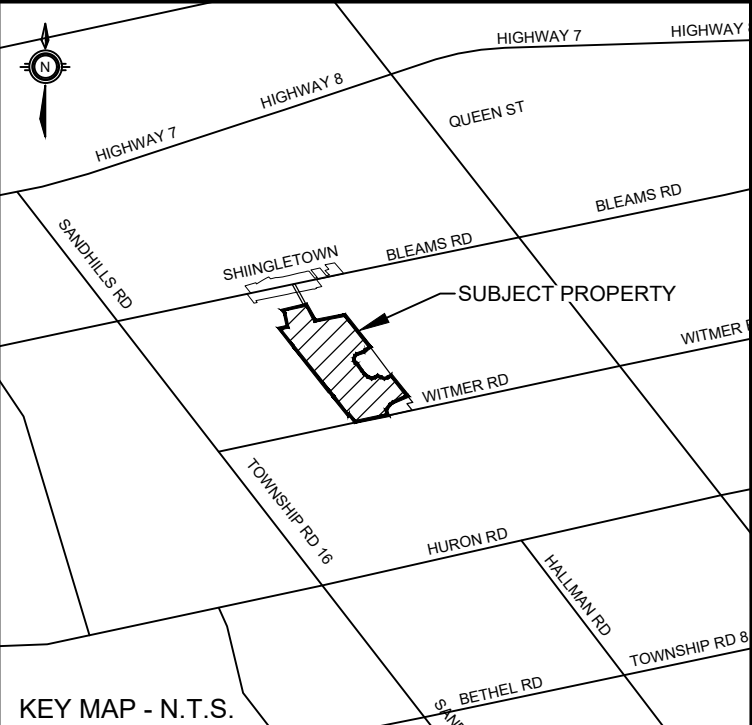
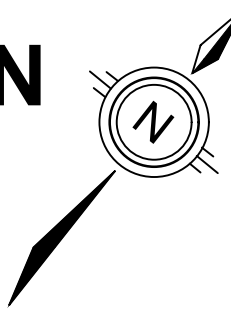


HALLMAN PIT

PROGRESSIVE AND FINAL REHABILITATION PLAN SHEET 7 OF 7



LEGEND

- PROPERTY BOUNDARY
- EXISTING POST & WIRE FENCE
- LICENSED AREA
- LIMIT OF EXTRACTION
- LIMIT OF 120m SETBACK
- FLAGGED WETLAND BOUNDARY
- ISSUES CONTRIBUTING AREA
- EXISTING TREELINE
- PROPOSED VEGETATION
- EXISTING BUILDING
- EXISTING POND
- EXISTING ENTRANCE/EXIT
- EXISTING FARM GATE
- EXISTING CONTOUR (2m INTERVAL)
- SURFACE DRAINAGE DIRECTION
- MW1 MONITORING WELL/ SURFACE GAUGE
- SHINGLETOWN SETTLEMENT AREA
- FINAL REHABILITATION SPOT ELEVATION mASL
- BAT BOXES
- ISSUES CONTRIBUTING AREA

PROGRESSIVE AND FINAL REHABILITATION NOTES

- Progressive Rehabilitation:**
- As illustrated on the 'Sketch of Progressive Rehabilitation Sequence and Direction' (Sheet 7 of 7), as extraction is completed in each phase, the following progressive rehabilitation actions will occur:
 - Those areas subjected to compaction shall be deep chisel ploughed or ripped to release compaction from heavy equipment.
 - Each horizon of replacement soil shall be chisel ploughed prior to the application of the next horizon of replacement soil.
 - Side slopes shall be backfilled using on-site overburden or imported clean inert fill. The side slopes will be created at a minimum slope of 3:1.
 - Where clean inert fill is used, it shall only be for the purpose to facilitate the side slopes and any other final agricultural land-use as required and not placed within the Region of Waterloo - Issues Contributing Area as denoted on Sheet 7 of 7. Specifically, clean inert fill will be used to backfill all of the wash pond and the recycling area as shown on Sheet 2 of 7.
- The Licensee must ensure that the material is tested at the source before it is deposited on-site to ensure that the material meets the MECP criteria listed under Table 1 of the 'Soils, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act.' Where the imported material is not being placed within 1.5 metres of the surface, the criteria under Table 1 for Sodium Absorption Ratio and Electrical Conductivity do not have to be met, in accordance with MNRF Policy No. A.R. 6.00.03. Sampling results must be provided to MNRF, MECP or the Region of Waterloo upon request.
- On-site topsoil/subsoil/overburden shall be placed across the prepared pit floor and side slopes. The material may be stripped material from the next extraction phase or depending on location and timing, from the perimeter berms. Material replaced shall be similar in depth to that removed (i.e., 0.15 - 0.2 metres topsoil and 0.3 metres subsoil) thereby providing a minimum final depth of 2.0 metres cover above the high groundwater table and generally as shown on the Progressive and Final Rehabilitation Plan, Sheet 7 of 7.
 - Earth scrapers, bulldozers and trucks shall be used to replace the on-site soils.
 - Once the pit floor has been rehabilitated, the lands will be seeded to a cover crop of oats and rye grasses to control surface erosion. Cover crops will be disc plowed in the spring to add organic matter. A grass/legume mixture will be established to improve soil structure and add fertility. Grass and legume cropping should continue for several years based on the following cropping sequence:
- | Time Frame | Crop | Comments |
|------------|---|---------------------------------|
| Year 1 | Cover Crops (Oats or Rye Grass) | Control of erosion |
| Year 2-4 | Legume or legume/grass mixture | Improve general soil conditions |
| Year 5+ | Row crops in rotation with legume, legume/grass mixture | |
- Maintenance:**
- If any significant portions of the rehabilitation die out, it will be replaced immediately during the proper planting season.
 - If any significant erosion or gully occurs at any time during the progressive and final rehabilitation, the Licensee will repair the area and re-seed as necessary.
- Final Rehabilitation**
- Fencing: Once the site has been fully rehabilitated, the perimeter post and wire fence may be retained but the 1.5 metre high T-bar posts surrounding the pine plantation shall be removed.
 - Internal Haul Routes: Once the site has been fully rehabilitated, all internal haul roads will be removed except the Wilmer Road entrance/exit.
 - Final Contours: Final contours are interpolated from available information at the time of preparation of these Site Plans and actual post-extraction slopes may vary; however, the final pit floor elevations as noted by the spot elevations should be achieved, but the final direction of surface water flow as shown, shall be met.
- Final Land Use**
- The final land use for the subject lands shall be agriculture and be subject to all restrictions of the Risk Management Plan filed with the Region of Waterloo.
 - The total area to be rehabilitated is 57.27 hectares.

SITE DATA

AREA TO BE LICENSED	57.27 ha
AREA TO BE EXTRACTED	52.27 ha
EX. DISTURBED AREA	Nil
TOTAL LAND PARCEL	66.2 ha

SITE PLAN OVERRIDES

REVISIONS PRIOR TO APPROVAL

DATE	Revisions as per MNRF notes & details
2019/10/16	

SITE PLAN AMENDMENTS

No.	DATE	BY	DESCRIPTION

THESE SITE PLANS ARE CERTIFIED BY THE UNDERSIGNED BY THE AUTHORITY OF MINISTERIAL APPROVAL AS SPECIFIED IN THE AGGREGATE RESOURCES ACT SECTION 8 (4) FOR A CLASS A, LICENCE CATEGORY 3 PIT.

SEPTEMBER 24, 2019
DATE
DAVID R. SISCO, RPP, MCIP

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PART LOT 10 CONCESSION SOUTH OF BLEAM'S ROAD,
TOWNSHIP OF WILMOT
REGIONAL MUNICIPALITY OF WATERLOO

JACKSON HARVEST FARMS LTD.

2879 HERRGOTT ROAD
ST. CLEMENTS, ON, N0B 2M0

PROGRESSIVE AND FINAL REHABILITATION PLAN

DESIGNED BY: JS
DRAWN BY: JS/PR
CHECKED BY: DS
DATE: 2019-09-24

SCALE: 1:2500
FILE NUMBER: 15985
SHEET NUMBER: 7 OF 7

SKETCH OF
PROGRESSIVE
REHABILITATION
SEQUENCE
AND DIRECTION