EPA Region 5 Records Ctr.

393258

# POTENTIAL HAZARDOUS WASTE SITE
## PRELIMINARY ASSESSMENT
### PART 1 - SITE INFORMATION AND ASSESSMENT

**I. IDENTIFICATION**

01 STATE: IL | 02 SITE NUMBER: 980 900 633

**II. SITE NAME AND LOCATION**

01 SITE NAME (Legal, common, or descriptive name of site): Ray-Ober Oil Co

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: NE 1/4 of SE 1/4 of Sect 7 NW 1/4 of SW 1/4 of Sect 8 T-6-S; R-6-E

03 CITY: Twigg Twnshp

04 STATE: IL | 05 ZIP CODE: 62301 | 06 COUNTY: Hamilton | 07 COUNTY CODE: 065 | 08 CONG DIST: 19

09 COORDINATES LATITUDE: 38 01 00 | LONGITUDE: 088 39 59 | McLeansboro 7.5' Quad 256

10 DIRECTIONS TO SITE (Starting from nearest public road): SEE ATTACHED MAP

**III. RESPONSIBLE PARTIES**

01 OWNER (If known): M. Dial

02 STREET (Business, mailing, residential): R.R. #2

03 CITY: Aden

04 STATE: IL | 05 ZIP CODE: 62895 | 06 TELEPHONE NUMBER: ( ) UNK

07 OPERATOR (If known and different from owner): Ray-Ober Oil Co

08 STREET (Business, mailing, residential): BOX 456

09 CITY: Centralia

10 STATE: IL | 11 ZIP CODE: 62801 | 12 TELEPHONE NUMBER: ( ) UNK

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☒ C. NONE

**IV. CHARACTERIZATION OF POTENTIAL HAZARD**

01 ON SITE INSPECTION

☐ YES DATE ___/___/___ (MONTH DAY YEAR)

☒ NO

BY (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR

☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)

CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)

☐ A. ACTIVE ☐ B. INACTIVE ☒ C. UNKNOWN

03 YEARS OF OPERATION

BEGINNING YEAR: | ENDING YEAR: Unk ☒ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Oily Waste (Toxic)
Heavy Metals (Soluble/Toxic/Persistant)

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Ground Water (Population/Environment)

**V. PRIORITY ASSESSMENT**

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH (Inspection required promptly) ☒ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

**VI. INFORMATION AVAILABLE FROM**

| 01 CONTACT | 02 OF (Agency/Organization) | | | 03 TELEPHONE NUMBER |
|---|---|---|---|---|
| | | | | ( ) |
| **04 PERSON RESPONSIBLE FOR ASSESSMENT** | **05 AGENCY** | **06 ORGANIZATION** | **07 TELEPHONE NUMBER** | **08 DATE** |
| Rich Lange | IEPA | HSCS | (217) 782-6760 | 09 17 85 (MONTH DAY YEAR) |

EPA FORM 2070-12 (7-81)

EPA

# POTENTIAL HAZARDOUS WASTE SITE
## PRELIMINARY ASSESSMENT
## PART 2 - WASTE INFORMATION

**I. IDENTIFICATION**

| 01 STATE | 02 SITE NUMBER |
|---|---|
| ILD | 980 900 633 |

**II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS**

**01 PHYSICAL STATES** (Check all that apply)

- X A SOLID
- B POWDER, FINES
- X C SLUDGE
- D OTHER _____ (Specify)
- E SLURRY
- F LIQUID
- G GAS

**02 WASTE QUANTITY AT SITE** (Measures of waste quantities must be independent)

- TONS
- CUBIC YARDS Unk
- NO. OF DRUMS

**03 WASTE CHARACTERISTICS** (Check all that apply)

- X A TOXIC
- B CORROSIVE
- C RADIOACTIVE
- X D PERSISTENT
- X E SOLUBLE
- F INFECTIOUS
- G FLAMMABLE
- H IGNITABLE
- I HIGHLY VOLATILE
- J EXPLOSIVE
- K REACTIVE
- L INCOMPATIBLE
- M NOT APPLICABLE

**III. WASTE TYPE**

| CATEGORY | SUBSTANCE NAME | 01 GROSS AMOUNT | 02 UNIT OF MEASURE | 03 COMMENTS |
|---|---|---|---|---|
| SLU | SLUDGE | | | |
| OLW | OILY WASTE | Unk | Unk | Crude Oil |
| SOL | SOLVENTS | | | |
| PSD | PESTICIDES | | | |
| OCC | OTHER ORGANIC CHEMICALS | Unk | Unk | Brine Waste |
| IOC | INORGANIC CHEMICALS | | | |
| ACD | ACIDS | | | |
| BAS | BASES | | | |
| MES | HEAVY METALS | Unk | Unk | Brine Waste |

**IV. HAZARDOUS SUBSTANCES** (See Appendix for most frequently cited CAS Numbers)

| 01 CATEGORY | 02 SUBSTANCE NAME | 03 CAS NUMBER | 04 STORAGE/DISPOSAL METHOD | 05 CONCENTRATION | 06 MEASURE OF CONCENTRATION |
|---|---|---|---|---|---|
| | | | | | |

**V. FEEDSTOCKS** (See Appendix for CAS Numbers)

| CATEGORY | 01 FEEDSTOCK NAME | 02 CAS NUMBER | CATEGORY | 01 FEEDSTOCK NAME | 02 CAS NUMBER |
|---|---|---|---|---|---|
| FDS | | | FDS | | |
| FDS | | | FDS | | |
| FDS | | | FDS | | |
| FDS | | | FDS | | |

**VI. SOURCES OF INFORMATION** (Cite specific references, e.g., state files, sample analysis, reports)

Federal S.I.A. #01063

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# POTENTIAL HAZARDOUS WASTE SITE
## PRELIMINARY ASSESSMENT
### PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: IL 02 SITE NUMBER: 980 900 633

## II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [ ] OBSERVED (DATE ____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 700
04 NARRATIVE DESCRIPTION
Highly soluble brine waste placed for disposal in unlined lagoon. This practice has impacted private wells at similar facilities.

01 [ ] B. SURFACE WATER CONTAMINATION — 02 [ ] OBSERVED (DATE ____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____
04 NARRATIVE DESCRIPTION

01 [ ] C. CONTAMINATION OF AIR — 02 [ ] OBSERVED (DATE ____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____
04 NARRATIVE DESCRIPTION

01 [ ] D. FIRE/EXPLOSIVE CONDITIONS — 02 [ ] OBSERVED (DATE ____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____
04 NARRATIVE DESCRIPTION

01 [ ] E. DIRECT CONTACT — 02 [ ] OBSERVED (DATE ____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____
04 NARRATIVE DESCRIPTION

01 [X] F. CONTAMINATION OF SOIL — 02 [ ] OBSERVED (DATE ____) [X] POTENTIAL [ ] ALLEGED
03 AREA POTENTIALLY AFFECTED: UNK (Acres)
04 NARRATIVE DESCRIPTION
Loss of production (Ag land) + damage to soil structure has been noted at similar sites.
(See J following) (See 05 Other following)

01 [X] G. DRINKING WATER CONTAMINATION — 02 [ ] OBSERVED (DATE ____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 700
04 NARRATIVE DESCRIPTION
See A above

01 [ ] H. WORKER EXPOSURE/INJURY — 02 [ ] OBSERVED (DATE ____) [ ] POTENTIAL [ ] ALLEGED
03 WORKERS POTENTIALLY AFFECTED: ____
04 NARRATIVE DESCRIPTION

01 [ ] I. POPULATION EXPOSURE/INJURY — 02 [ ] OBSERVED (DATE ____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____
04 NARRATIVE DESCRIPTION

EPA

**POTENTIAL HAZARDOUS WASTE SITE**
**PRELIMINARY ASSESSMENT**
**PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS**

| I. IDENTIFICATION | |
|---|---|
| 01 STATE | 02 SITE NUMBER |
| IL | |

**II. HAZARDOUS CONDITIONS AND INCIDENTS** (Continued)

01 [X] J. DAMAGE TO FLORA — 02 [ ] OBSERVED (DATE: _____) — [X] POTENTIAL — [ ] ALLEGED
04 NARRATIVE DESCRIPTION The near sterilization of soils (>5 acres), atributed to increased soil salinity, has been noted at other similar sites.
(See F Above) (See 05 other following)

01 [ ] K. DAMAGE TO FAUNA — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
04 NARRATIVE DESCRIPTION (Include names of species)

01 [ ] L. CONTAMINATION OF FOOD CHAIN — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
04 NARRATIVE DESCRIPTION

01 [ ] M. UNSTABLE CONTAINMENT OF WASTES (Spills, runoff, standing liquids, leaking drums) — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 [ ] N. DAMAGE TO OFFSITE PROPERTY — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
04 NARRATIVE DESCRIPTION

01 [ ] O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
04 NARRATIVE DESCRIPTION

01 [ ] P. ILLEGAL/UNAUTHORIZED DUMPING — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
04 NARRATIVE DESCRIPTION

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
Denuding of soils by brines is deemed leading cause of soil erosion in several Il. counties.

**III. TOTAL POPULATION POTENTIALLY AFFECTED:** 700

**IV. COMMENTS**

Ray-Ober Oil Co
Address Unreported
Centralia, IL 62301

Information as appears on ERRIS (L-4)

**V. SOURCES OF INFORMATION** (Cite specific references, e.g., state files, sample analysis, reports)

EPA FORM 2070-12 (7-81)

# EXECUTIVE SUMMARY

This site has been placed in the ERRIS data base as a result of its identifaction during the federally funded Surface Impoundment Assessment (SIA) study of 1980. During ERRIS placement the operator name and business address were utilized from the SIA which results in deviations from ERRIS for actual site location, Part I section II items 02 through 08 of form 2070-12. This use of operator name and address has also led to one (1) ERRIS listing representing, in actuality, from one (1) to one hundred eight (108) actual brine pits at an equal number of separate locations.

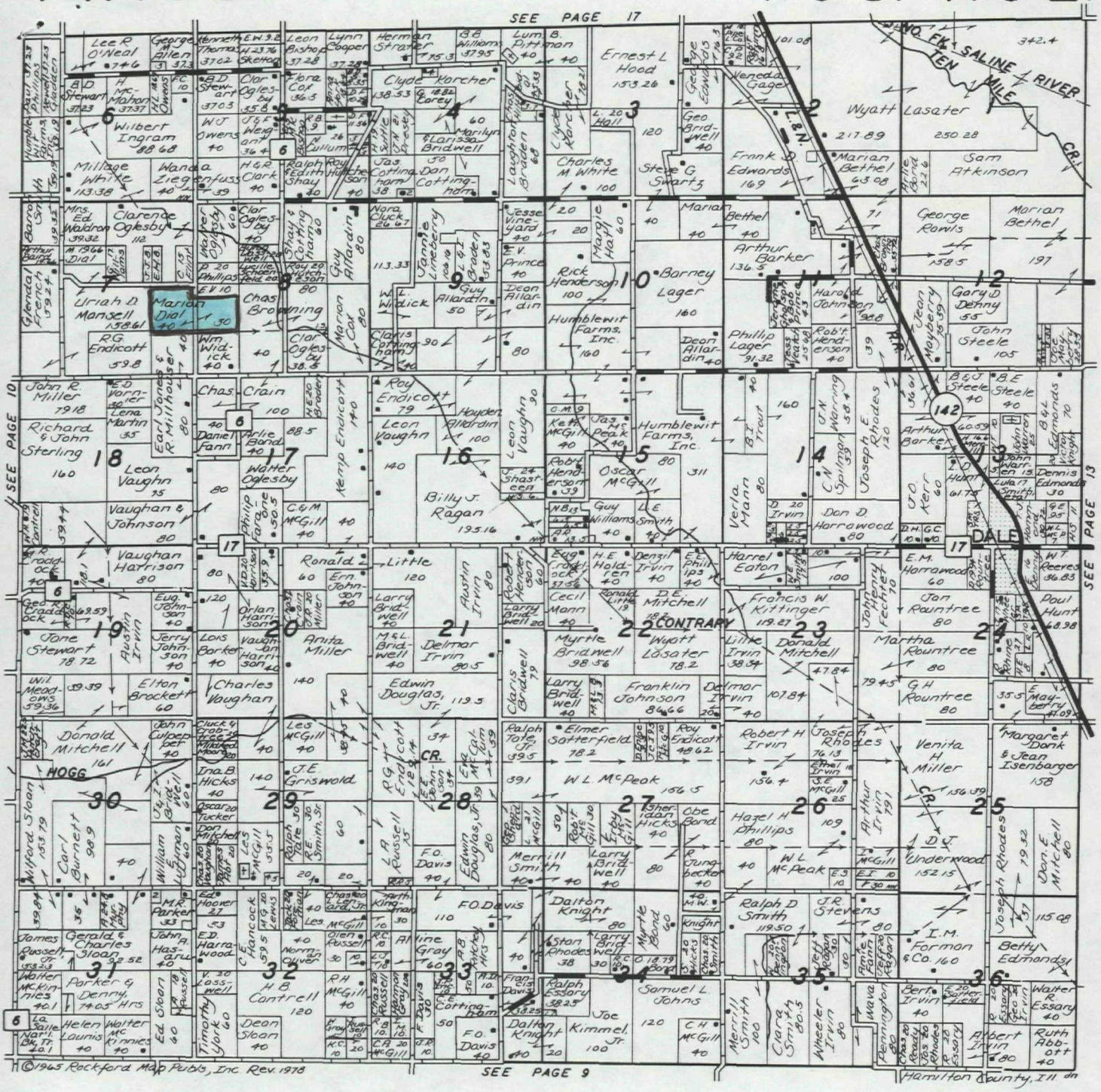
Some considerable effort has been expended to select the site with highest, Phase II SIA, pollution potential when available where multiple sites are represented by a single ERRIS listing. One must keep in mind that the Phase II SIA represents no more than 7 percent of the brine pits identified in Illinois. Phase I identified more than 3200 pits where Phase II evaluated a random selection of less than 220. One must also maintain a realization that Phase II pollution potential was determined by bench top study with little or no actual site visitation or monitoring. This site did not receive Phase II evaluation although the operator was placed on ERRIS. All identified sites associated with this operator will therefore receive Preliminary Assessment.

Minimal to no file information exists on this site beyond that contained in Phases I of the SIA. There is no direct evidence of hazardous waste disposal at this site beyond the potentially hazardous constituents of Illinois Basin brines, but with only annual inspections by Illinois Mines and Minerals staff relevent to oil production practices and recent backfilling of most brine pits in Illinois, disposal of off site material of unknown nature is possible. A literature review and laboratory analysis of samples from two other sites indicate concern for contamination of groundwater/surface water by Sodium, Sulfate, Chloride etc. (Non-Hazardous Constituents), concern for heavy metals (i.e., Chrome, Vanadium, Barium) and long chain hydrocarbons.

A question arises as to the addressability of the heavy metals by CERCLA whn one considers 40 CFR section 300.6 "Definitions - Federally Permitted Release (i)" and Section 101(10) of CERCLA. The statement "and which are reinjected" seems to allow CERCLA action, but interpretation and clarifications by USEPA legal staff seems required. The long chain hydrocarbons would appear to be included in the exclusion given to crude oil and factions thereof under 40 CFR section 300.6 "Definitions-Hazardous Substance" and 101(14) of CERCLA.

A medium priority has been assigned due to the potential impact of this site on groundwater in a rural area where private wells are generally the sole source for potable water. Similar sites have impacted private wells to a point requiring users to seek alternative sources for drinking water. A site inspection should be scheduled to verify/update owner-operator information and gain more thorough site specific information.

TGA:RML:cm:4/21

# T. WIGG

# T. 6 S.–R. 6 E.