

From Assistants to Agents: How AI Is Transforming Environmental Compliance

ECN Conference: March 19th, 2026

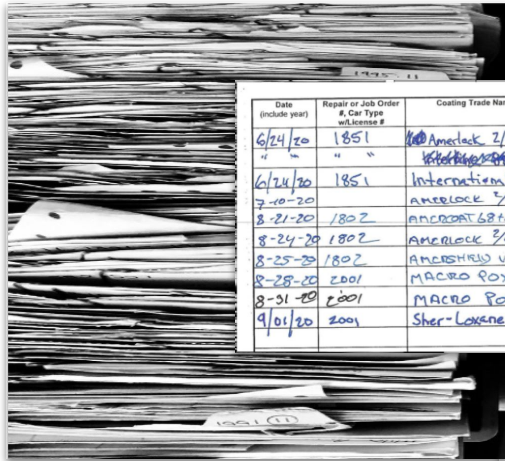




Ryan Janoch
Cofounder @ Mapistry

Mapistry is environmental software for industrial facilities

We replace spreadsheets, paper forms, Outlook reminders, multiple systems, and more...



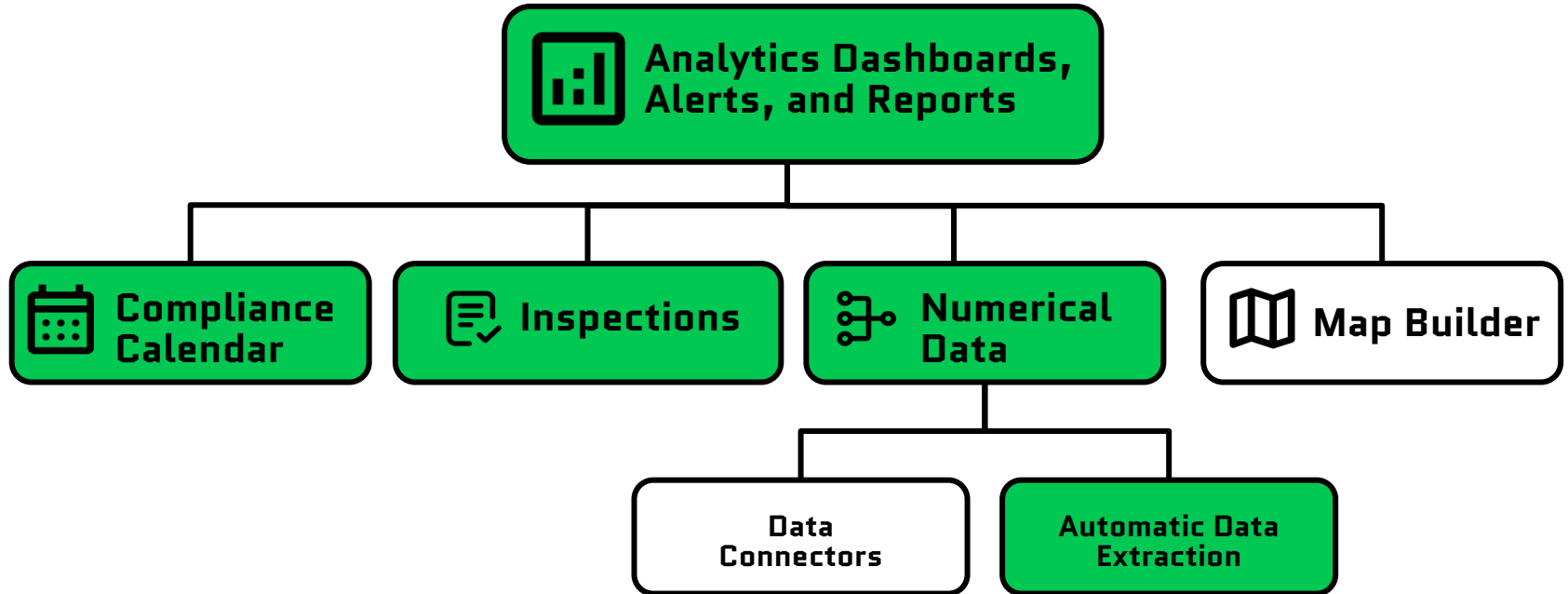
Date (include year)	Repair or Job Order #, Car Type or License #	Coating Trade Name, Code # & Type	Catalyst Type (Code #)	Reducer Type (Code #)	Mix Ratio	Amount Sprayed	Paint Amount Wasted, if applicable	Painter's Initials
6/24/20	1851	Amerlock 2/400 white	Amerlock 2	Amerlock 2	1 to 1	1 1/4 gal.		J.S.
6/24/20	1851	International Interline 950	IL950			1/4 gal.		J.S.
7-10-20		AMERLOCK 2/400 white	AMERLOCK 2	AMERLOCK 2	1 to 1	1/2 gal.		J.R.
8-21-20	1802	AMERLOCK 68 H3	AMERLOCK 68 H3	AMERLOCK 68 H3	1 to 1	1/4 gal.		J.R.
8-24-20	1802	AMERLOCK 2/400	AMERLOCK 2	AMERLOCK 2	1 to 1	1/4 gal.		J.R.
8-25-20	1802	AMERLOCK VOC YELLOW	AMERLOCK VOC	AMERLOCK VOC	1 to 1	1 gal.		J.R.
8-28-20	2001	MACRO POWS 646 A	MACRO POWS 646 A	MACRO POWS 646 A	1 to 1	1/4 gal.		J.R.
8-31-20	2001	MACRO POWS 646 A	MACRO POWS 646 A	MACRO POWS 646 A	1 to 1	2 gal.		J.R.
9/01/20	2001	Shur-Lowene 800	Shur-Lowene 800	Shur-Lowene 800	4 to 1	1 1/2 gal.		J.R.

Month	22,005	28,800	35,000	30,224	144,000	35,400
March	24,163	-	28,800	26,648	144,000	179,700
April	1,584	-	6,000	36,681	-	51,000
May	2,934	-	6,000	28,806	-	36,000
June	40,149	-	33,000	48,862	-	27,000
July	21,245	-	15,000	9,720	-	39,000
August	16,472	-	12,000	24,683	-	30,000
September	12,410	-	9,000	21,307	-	33,000
October	14,987	-	12,000	32,683,558	-	33,000
November	-	-	-	-	-	-
December	-	-	-	-	-	-
Total	177,445	-	175,800	32,940,871	144,000	512,100

Emission Source	Unit ID	Filterable PM (tpy)	Condensable PM (tpy)	Filterable PM10 (tpy)	Filterable PM2.5 (tpy)	Total PM10 (tpy)
Unit #1 with heater	001 and 002	0	0	0	0	0
	003, 004 and 015	0	0	0	0	0
	005	0	0	0	0	0
	006	0.21	61.39	6.10E-03	3.97E-04	45.3
V-2		0.1	--	0.03	0.02	0.06
		--	--	0.01	--	--
		0	0	0	0	0
		1.21	--	0.78	0.92	1.12
		--	--	--	--	--
Total						46.48

Pollutant	Annual Emissions	
	Chronic Trigger (lb/year)	2020
Ethyl Ketone	N/A	0.2848
Benzene	N/A	0.0199
ne	12000	0.5671
e	27000	0.0288
Phosphite	3.2	0.0199
ium Chromate	0.00077	0.0081

Environmental Compliance Platform





The “Easy Button” for Environmental Compliance

- Just press “Generate Compliance” and **go home early!**
- Who needs expertise when you have a chatbot?
- Cut costs by 100%, while 10Xing your risk



Is AI my replacement?

Is AI useful? Should I use it?

Automate environmental data entry with

Maple AI

No more manual data entry. Send PDFs, emails, or photos to Mapistry and extract the relevant data with AI.

Where AI is today in environmental

No More

AI to Build Your Chemical
Catalog from SDSs

CEQA Compliance

of the CEQA lifecycle.
to preliminary review

Climate Volatility
with Hyper-Local, AI-Powered
Climate Insights

Where AI is useful

- **Data extraction:** ex. lab reports, manifests, invoices
- **Summaries:** ex. permits, plans, emails
- **Extracting text:** ex. tasks from air permits for audits

Title V Permit Audit Preparation

Upgrade

prelim-c-1213036

PDF

You are an internal company auditor preparing a manufacturing facility for an inspection by epa. Using the Title V air permit, create a comprehensive audit form to be used by the corporate audit team to ensure compliance and identify any gaps before the epa does.

Section 4: Units C-4071-3 & -4 (Emergency Engines)

Compliance with District Rule 4702 and ATCM. [@+1](#)

Audit Item	Requirement	Evidence/Data Point	Status (P/F)
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Hour Meters	Must have functional non-resettable elapsed meters.	Physical inspection of meters on both engines.	
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Title V Permit Audit Preparation

Upgrade

Audits

Fuel Limits

Fired exclusively on natural gas; < 11 MMscf per day.

Daily fuel meter readings.

NOx & O2 Audits

Audits per 40 CFR Part 75, Appendices A & B.

Review most recent quarterly audit reports.

CO CEMS Audits

Audits per 40 CFR Part 60, Appendix F.

Verify audit results and submittal to District.

RATA Testing

Annual Relative Accuracy Test Audit for NOx, CO, and O2.

Latest RATA certification paperwork.

SCR Operation

SCR must be in

Verify ammonia

ARB-certified (< 0.0015%

Fuel delivery receipts.

× Creating Title V Permit Internal Audit Checklist Save Changes

Hour Meters	Must have functional non-resettable elapsed time meters.	Physical inspection of meters on both engines.
Operating Limits	Fire Pump: ≤ 100 hrs/yr; Generator: ≤ 50 hrs/yr for testing.	Monthly logs of emergency vs. non-emergency use.
Maintenance	Change oil/filter every 500 hours or annually.	Maintenance work orders/receipts.
Fuel Type	Only CARB-certified diesel (< 0.0015% sulfur).	Fuel delivery receipts.

Title V Permit Audit Preparation

Form Inspection Date What is this?

Date of Audit

General Information

Section 1: Facility

Section 2: Unit C-4071-8 (49 MW Gas Turbine)

Section 4: Units C-4071-3 & -4 (Emergency Engines)

+ Add new section

General Information

Reorder or edit the fields in this section.

T Facility Required ⋮

T Project No Required ⋮

📅 Date of Audit

⊕ Add new field

Configure field details

Field Name *

Record Retention Status (Pass/Fail)

Field is required

Options *

Pass

Fail

⊕ Add item

Display options alphabetically

Assign default option

Cancel Apply

Inspections

Let's break it down

A waste data journey

Step 1: container goes off site, snap a photo of the manifest



Step 4: You see manifest data vs EPA data



Step 2: Maple AI automatically extracts manifest data

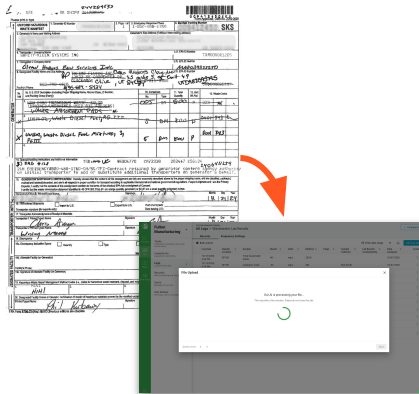
Step 3: EPA data automatically goes in

Maple AI: Waste Manifests

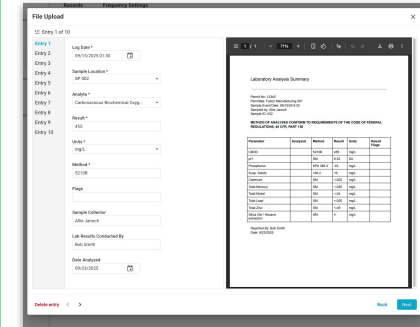
Upload photo/PDF
or email
Step 1



Data Extracted by
AI into Mapistry
Step 2



Review (and edit) in
Mapistry
Step 3



Customer Story

Graniterock Waste Management



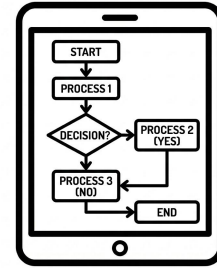
Pre 2020

On-site waste manifests and binders



2020-2024

Digitized manifests and weekly inspection, but manual data tracking



2025 - Present

New workflow connected to RCRAInfo and **manifest data extraction by AI**

WATER DEMO

Log Entries

Entry 1 of 6

- Entry 1
- Entry 2
- Entry 3
- Entry 4
- Entry 5
- Entry 6

Log Date *
03/03/2026 08:00

Sample Location
WW-1

Parameter
TSS

Lab Report #
26-0315-001

Method
SM 2540 D

Reporting Limit
5

ACME Environmental Laboratory, Inc.
1234 Industrial Way, Suite 200
Anytown, USA 00000
Lab ID: 26-0315-001
Report Date: March 3, 2026

Lab Reports

Sample Information

Sample ID	Sampling Location	Sample Type	Date Collected	Time Collected
WW-1	Outfall 001	Grab	02/25/2026	09:15
WW-2	Equalization Tank Effluent	Grab	02/25/2026	09:30

Analytical Results

Sample: WW-1
Location: Outfall 001
Collection Date: 02/25/2026

Next

1-22 of 22

Where AI is going

- **Actions:** ex. agents, send and prepare a report
- **Data analysis:** ex. riskiest sites
- **Predictions:** ex. tasks from air permits for audits
- **Advice:** ex. BMP recommendations based on stormwater data

You won't lose your job to AI

You **will lose your job** to an
environmental professional
who uses AI



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