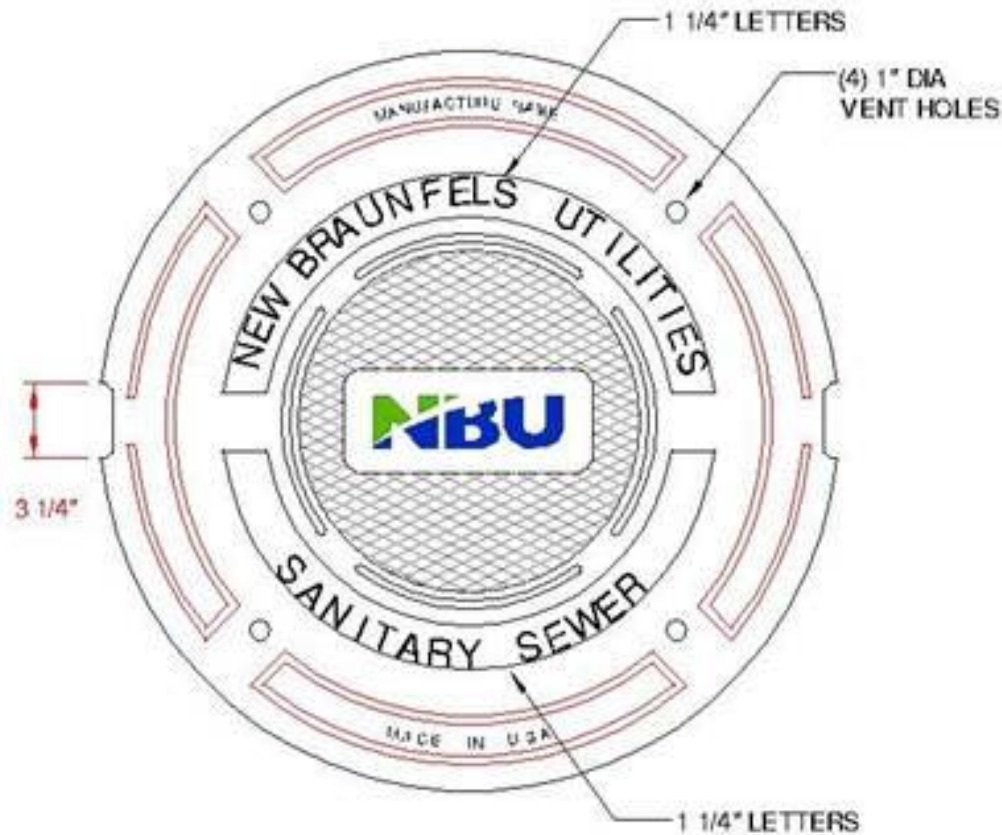


NBU Comprehensive Sewer Maintenance Programs



Outline

- Sanitary Sewer Maintenance
Regulatory Requirements
 - Federal (EPA – CMOM)
 - State (TCEQ – SSOI)
- NBU's Performance
- CMOM Programs at NBU



Sanitary Sewer Maintenance Regulatory Requirements

- Purpose: Prevent Sanitary Sewer Overflows (SSOs)



Sanitary Sewer Maintenance Regulatory Requirements

- Federal: EPA
 - Capacity, Management, Operations & Maintenance (CMOM)
- State: TCEQ
 - Sanitary Sewer Overflow Outreach Initiative (SSOI)

What is CMOM?

- A collection of EPA recommended programs designed to prevent SSOs
- Programs cover all aspects of the utility
- Almost became law in 2000
- Selective implementation since that time
- 1st implementation step is an audit
- Where is the TCEQ in all of this?

TCEQ's SSOI

- Encourages comprehensive planning to prevent SSOs
- Participation is voluntary
- Offers protection from enforcement action by TCEQ for SSOs
- No penalties for participating
- Requires a formal agreement (“SSO Agreement”) between utility and TCEQ

CMOM & SSOI

How are they Related?

CMOM programs are implemented to achieve the aims of an SSO Plan, which is...

To Prevent SSOs



CMOM & SSOI at NBU

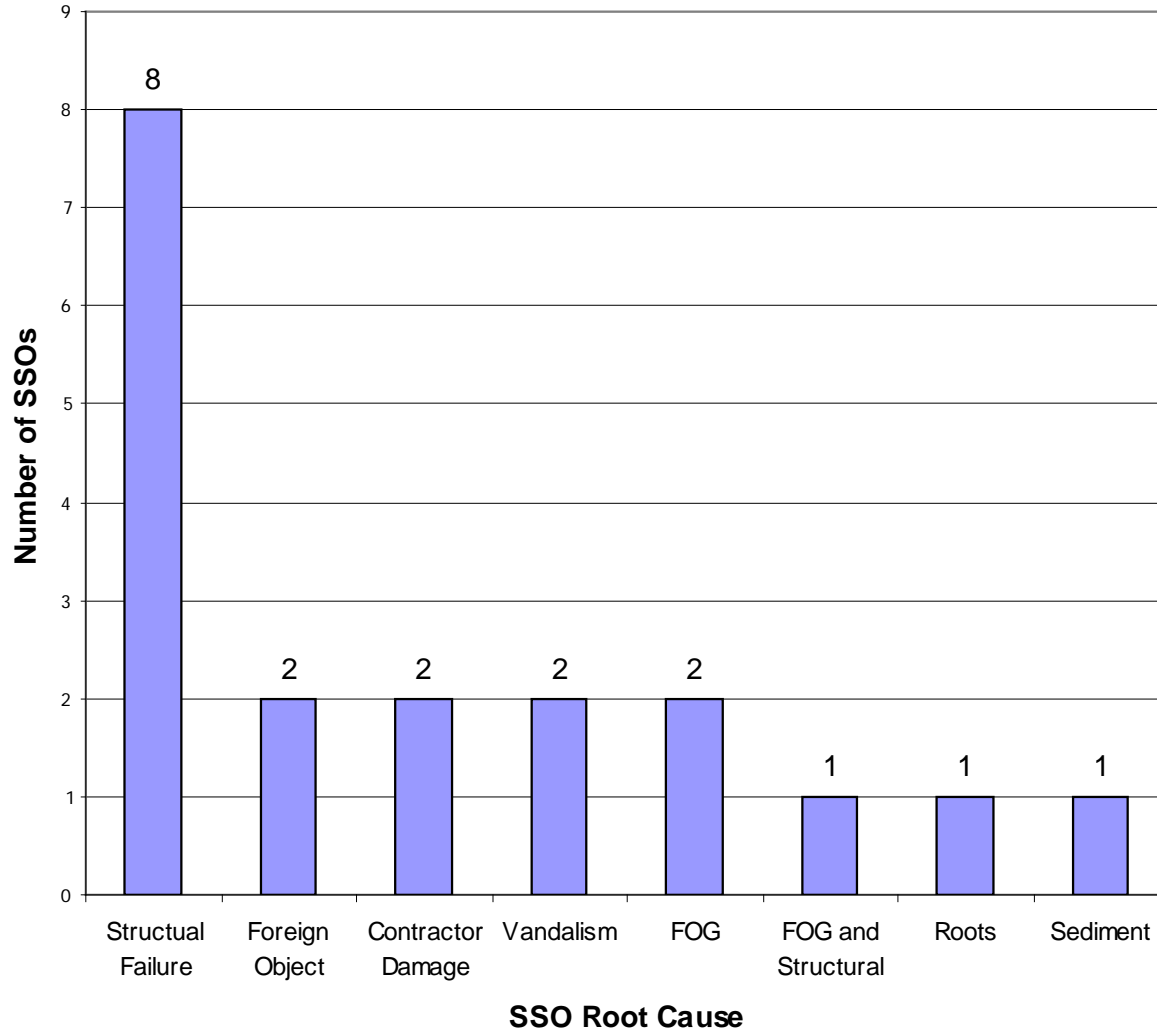
- CMOM Self-Audit Completed June 2007
- Interviews with NBU staff to collect data
- Gap Analysis: *Where We Are, Where We Need to Be, How Do We Get There*
- Executed SSO Agreement May 2010

NBU's Performance

- NBU averages 20 SSOs/yr or 6/100 miles of pipe
- EPA threshold for poor performance is 8 SSOs/100 miles of pipe (26/yr for NBU)
- TCEQ wants no repeat SSOs and a reduction in total # of SSOs



SSO Root Cause Analysis Summary for Fiscal Year 2009





New Braunfels, Texas
Caddell Ln

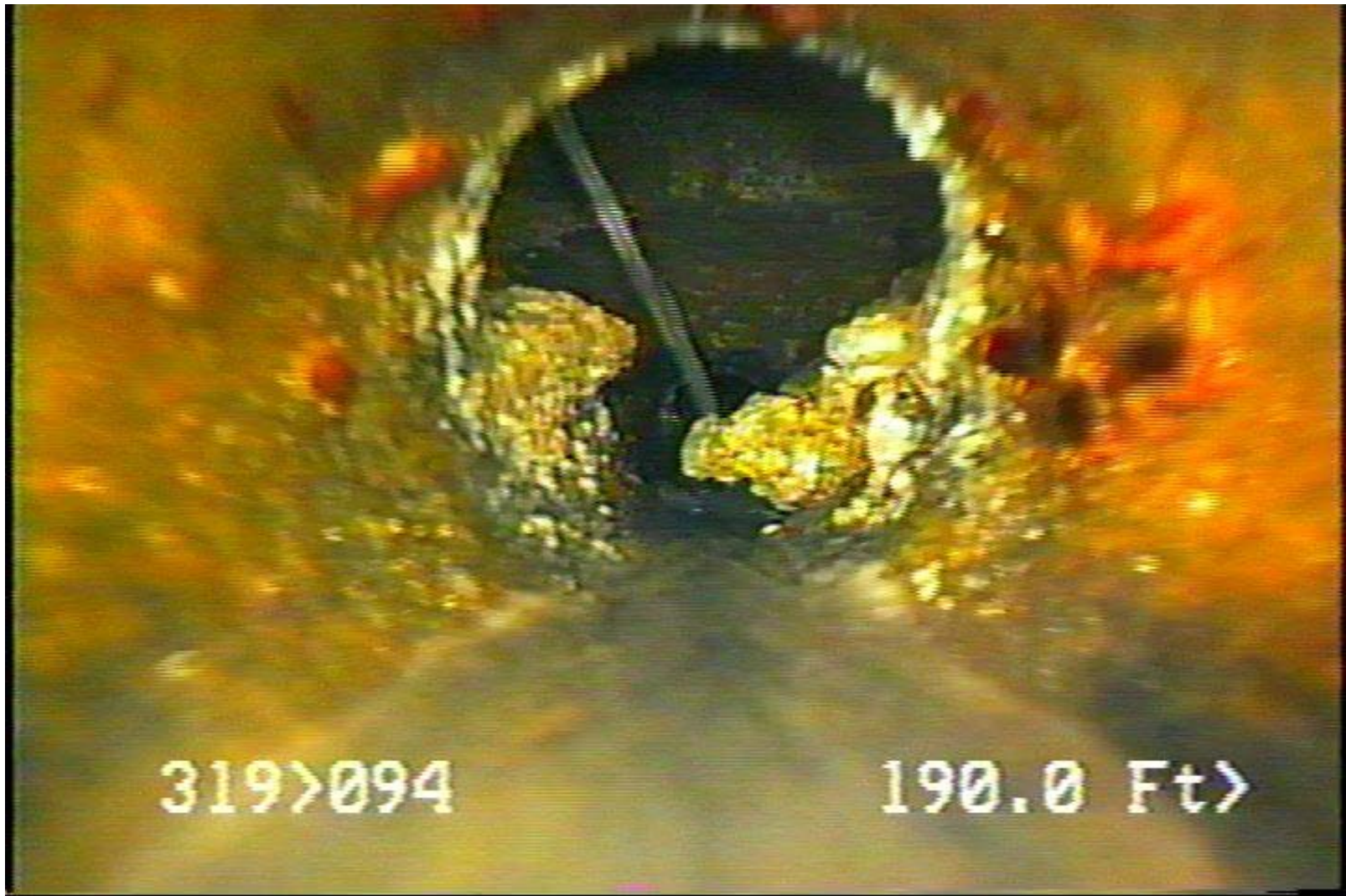
MH 1372 → MH 1371
8
Clay / VGT

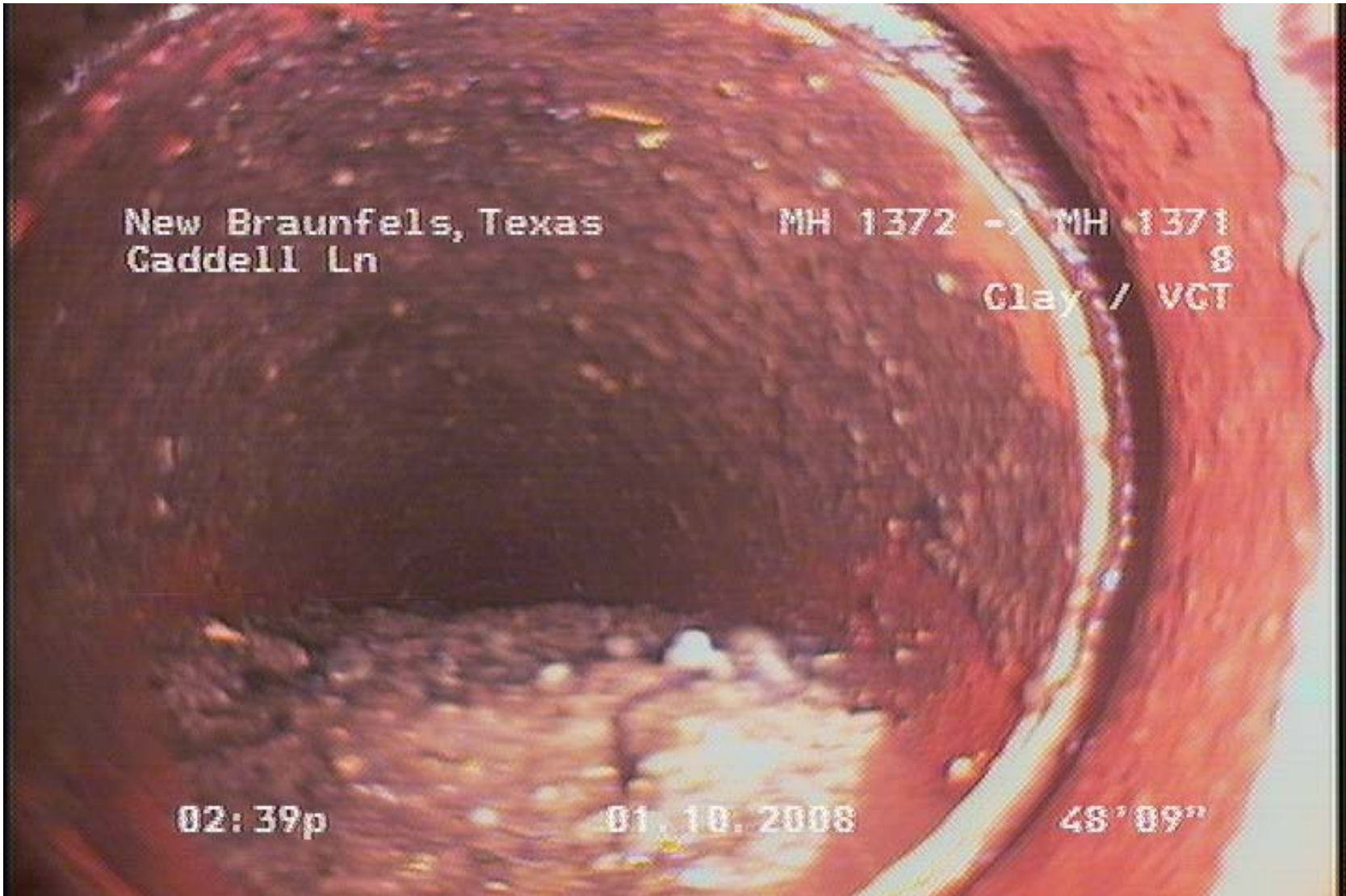
roots heavy

02:49p

01.10.2008

168'11"





New Braunfels, Texas
Caddell Ln

MH 1372 -> MH 1371
8
Clay / VCT

02:39p

01.10.2008

48'09"



New Braunfels, Texas
Roseparks

MH 3968 -> MH 3966
8
PVC

debris grease medium from 08 to 11 o'clock

02:43p

10.24.2007

141'06"







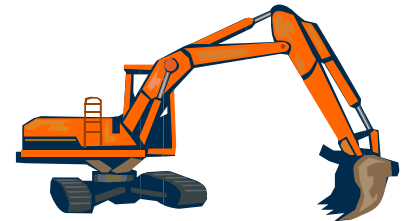


1 to 2

52.2

NBU CMOM Programs

- Assigned CMOM responsibilities to an operations supervisor
- Root cause analysis on all blockages including video inspection
- Purchased lateral camera to supplement CCTV van
- SSO database
- Implemented CMMS



NBU CMOM Programs

- Revised SSO reporting form
- FOG program
- Sewer inspection & cleaning routes
- Lift station preventive & predictive maintenance
- Map sewer trouble calls
- SSO Emergency Response Procedure

NBU CMOM Programs

- Performance measures
- GIS (Asset survey, record drawings)
- System maps (field use includes paper as well as laptops)
- Monthly Engineering/Operations Coordination Meeting
- Preventive sewer cleaning
- TCEQ licensing incentive



NBU CMOM Programs

- Analyzing downstream capacity when new developments are reviewed
- Lift Station Emergency Response Procedure
- Sanitary Sewer Evaluation Survey (SSES)



Questions?

