BEFORE THE TENNESSEE REGULATORY AUTHORITY

Nashville, Tennessee

IN RE:

PETITION OF CARTWRIGHT CREEK, LLC	)	
TO CHANGE AND INCREASE RATES	)	DOCKET NO. 09-00056
AND CHARGES	)	

CARTWRIGHT CREEK'S REPLY TO CONSUMER ADVOCATE'S RESPONSE TO PETITION FOR RECONSIDERATION OF CARTWRIGHT CREEK, LLC

Cartwright Creek, LLC ("Cartwright Creek") respectfully provides its Reply to the Consumer Advocate's Response to the Petition for Reconsideration.

I. Cartwright Creek has provided relevant evidence warranting an increase in tap fees.

The Consumer Advocate stated that Cartwright Creek has not provided adequate proof of costs to repair its system. Such proof has been presented and is conveniently ignored by the Consumer Advocate.

Cartwright Creek submitted an August 5, 2008 memorandum that addressed concerns with Cartwright Creek's system and stated that a plan to determine the most cost effective repair would be necessary. A true and accurate copy of the memorandum is attached hereto as ***Exhibit 1***. The plan itself costs $182,000.00. Cartwright Creek desperately needs the increase in tap fee to commission this plan and make the suggested repairs. This issue has never been disputed and no contradictory evidence has been submitted by the Consumer Advocate (or any other entity).

Additionally, Cartwright Creek provided a summary of videos taken of its facilities. A true and accurate copy of the summary is attached hereto as ***Exhibit 2***. This summary highlighted over one-

hundred various issues and problems with Cartwright Creek's system. These issues have never been disputed and no contradictory evidence has been submitted. Based on the foregoing, there is more than ample evidence to show that Cartwright Creek is in dire need of an increase of its tap fees to $9,000.00 as requested.

II. Standing of Consumer Advocate to challenge proposed tap fees

The delegation of authority from the State Legislature to other governmental entities is strictly construed. It has been stated that:

> the doctrine of strict, but reasonable, construction of delegations of state legislative power seeks only to give effect to the practical nature of local governmental authority in Tennessee. As such, absent some indication to the contrary, the General Assembly must be presumed to have endowed local governments with only as much authority as it has granted through the language of its delegation.

Southern Constructors, Inc. v. Loudon County Bd. of Educ., 58 S.W.3d 706 (Tenn. 2001).

The Consumer Advocate lacks proper standing to challenge increases to proposed tap fees. The Consumer Advocate has been delegated the following authority: "the consumer advocate division has the duty and authority to represent the interests of Tennessee consumers of public utilities services." The Proposed tap fees do not affect the interests of "Tennessee consumers of public utility services." These tap fees only affect future potential consumers of Cartwright Creek. If the Tennessee legislature had intended to grant the broad authority to the Consumer Advocate to represent such future/potential consumers, it could have done so. However, the legislature's exclusion of this language reflects its intention to not grant this authority to the Consumer Advocate. Based on the foregoing, the Consumer Advocate has no standing to address issues that do not affect current consumers of Cartwright Creek.

III. Timeliness of Petition for Reconsideration

Cartwright Creek fully complied with the spirit of the rule regarding filing its Petition for Reconsideration. In an effort to present accurate evidence to the authority and to correct any inaccurate conclusions, Cartwright Creek was required to review applicable regulations of various

jurisdictions concerning tap fees. Cartwright Creek's diligence revealed that Brentwood actually charges a tap fee of $10,000.00 for residences that are similar situated to those in Cartwright Creek's territory.

Additionally, if the Petition is not granted, Cartwright Creek will only incur more attorneys' fees pursuing its appeal to the Tennessee Court of Appeals. Such costs will ultimately hurt Cartwright Creek's already precarious financial position; potentially endangering its ability to serve its consumers. As the Authority still has the power to grant this Petition for Reconsideration, Cartwright Creek would request that it do so.

Respectfully submitted this the 12th day of April, 2010.

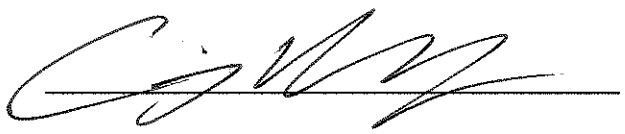
Gregory L. Cashion (No. 10697)
Craig N. Mangum (No. 27398)
SMITH CASHION & ORR, PLC
231 Third Avenue North
Nashville, Tennessee 37201
Telephone: (615) 742-8555
Facsimile: (615) 742-8556

Thomas L. Kolschowsky
Sheaffer International, LLC
As Manager of Cartwright Creek, LLC
800 Roosevelt Road, Suite A-120
Glen Ellyn, IL 60137
Attorneys for Cartwright Creek, LLC

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document on all counsel of record as listed below by placing a copy thereof, in the United States mail, postage prepaid, on this the 12th day of April, 2010.

Mary White
Consumer Advocate & Protection Division
Office of the Attorney General
Post Office Box 20207
Nashville, Tennessee 37202



Sheaffer International. LLC

Memo

To: Bob Cochrane, CFO
From: Bruce Meyer, P.E, Tennessee Regional Manager
Date: August 5, 2008
CC: Nathan Hinch, Scott Davis
Re: Key issues with Cartwright Creek–Grasslands Collection and Treatment Systems

Collection System:

- Infiltration: Infiltration is groundwater that enters the system with little or no rain through problems such as pipe cracks, bad joints, cracked manholes, and leaking service line connections. At the Grasslands STP, the flow from residential and commercial customers should be approximately 150,000 gallons/day (gpd). The design flow of the plant is 250,000 gallons/day. However, on a DRY day (no inflow from rain/storm water), the influent flow is still 300,000 – 400,000 gpd. This means that the plant is receiving approximately 250,000 gpd of infiltration. A video inspection of a portion of the system in 2003 (approximately 26,000 ft of the total 40,000 ft. of collection system) conducted by a contractor hired by the previous owner, identified over 50 major and minor infiltration sources. You will remember that, in 2006 Cartwright Creek hired Insituform and spent $75,000 to reline approximately 1000 ft. of sewer that the video inspections indicated had the highest concentration of sources. Identification of other infiltration sources will require additional video inspection of the remaining lines. After identification, these sources can be repaired using a number of methods that we have recently investigated, including cured-in-place liners and remote controlled grouting.

- Inflow: Inflow is additional water entering the system when it rains. Infiltration is substantial at Cartwright Creek, as the flow can exceed 800,000 gallons/day when it rains. The sources could be illicit storm water connections (such as roof drains or parking lot drains) and/or the creek overflowing into leaking manholes or broken pipes. Identification of inflow sources and determination of the most cost effective repair methods for inflow sources will require wet weather flow investigations and further engineering.

- The new NPDES permit discussed below is likely to include a requirement to investigate and repair the collection system infiltration and inflow and a compliance timetable.

- A plan to investigate the sewer condition, identify the inflow and infiltration sources, and determine the most cost effective repairs is provided as Attachment A-1. The estimated

EXHIBIT
tabbies
1

cost to complete the investigation and engineering program for the sewage collection system is $124,000.

- Main Pump Station: The 35' deep dry well and pumps are nearing the end of their useful life. Complete replacement may be the best long term solution. However, the site's rock and groundwater as well as physical depth need to be considered as they could have a major cost impact. In order to get accurate costs, the engineering, including drawings and specifications, need to be completed. An outline of the preliminary engineering design required to obtain accurate costs for the pump station repair / replacement is provided as part of Attachment A-2. The estimated cost to complete the engineering investigation for the Main Pump Station is $23,000.

Treatment System:

- The facility's effluent currently meets the discharge limits in the existing NPDES permit, which was due to be renewed in November 2006. TDEC has not yet renewed it nor will it estimate a date by which a draft, revised permit will be issued.

- The new permit is expected to reduce allowable discharge of nutrients (Nitrogen and Phosphorus) to a level that could require substantial upgrade or complete replacement of the facility. The options cannot be fully defined and compared until the permit is issued and additional engineering is conducted.

- In anticipation of more stringent discharge requirements and without charging Cartwright Creek, Sheaffer International staff conducted a preliminary investigation of potential options for plant replacement. This investigation included a review of compiled flow and nutrient information, sketching out potential, preliminary layouts, and securing preliminary budgetary information for various equipment components. Further engineering, including drawings and specifications, needs to be completed to arrive at a reliable cost estimate. An outline of the preliminary engineering required to investigate and estimate the cost of upgrading the existing system versus system replacement is provided as Attachment A-2. The estimated cost to complete the engineering investigation for the Grasslands sewage treatment plant is $35,000.

- Any evaluation of Cartwright Creek's future must consider that the 35 year old wastewater treatment plant is nearing the end of its design life. We already know that the age of the system requires additional regular maintenance expense. In addition, the cost of refurbishing major items like the clarifier drive, aeration system components, tank walls, structural steel, final filter system, underground piping, and building need to be factored into engineering and cost evaluations, once the new permit requirements are known.

These upgrades will be complicated by the fact that the system must be kept operational while major components are worked on.

The total budget to complete the proposed engineering investigations necessary to evaluate the Grasslands sewage treatment plant and sewage collection system is as follows:

1.	Sewage Collection System	$124,000
2.	Main (Influent) Pump Station	$ 23,000
3.	Sewage Treatment Plant	$ 35,000
Total		**$182,000**

ATTACHMENT A-1

ESTIMATED BUDGET FOR Cartwright Creek Collection System Investigation and Engineering Program:
Updated 7-31-08

This Program consists of the following major components:

1. Preparation of collection system drawings ($29,000)
2. Video inspection and pressure tests ($29,000)
3. Wet Weather Flow Measurement ($28,000)
4. Smoke Testing ($22,000)
5. Report: Engineering, recommendations, cost estimates ($16,000)

Total Cost of the Program: $124,000

1. Collection System Drawings

- Current drawings are over 20 years old, none are on CAD, and are a collection of 5 different projects completed over 30 years.
- A drawing and information tracking system is needed to monitor and control upgrades of the collection system as well as operate and maintain the system on a daily basis.
- Utilizing GIS software and GPS devices, Sheaffer staff should be able to develop a comprehensive system wide drawing.
- The GIS software will also be used to store and access information on pipe and manhole condition, repairs completed, etc. as needed for use on an ongoing basis.
- Equipment needed (total $13,000):
    - GIS Software, "Manifold" with one license: $1000
    - Hand held GPS unit with data logging and alphanumeric input: $5000
    - Computer work station and operating software: $2000
    - Full sized drawing plotter (refurbished): $5,000
- Estimated Engineering staff time to prepare (total $16,000):
    - Field work: 60 hours @ $100 / hr = $6,000
    - Office: 80 hours @ $125 / hr = $10,000

Total Cost of Collection System Drawings: $13,000 + $16,000 = $29,000

2. Video Inspection and Pressure Tests

- Video Inspections and line cleaning of lines never inspected
    - Behind shopping center to garden center - 800'

- In front of shopping center stores - 400'
- Line to Grassland Schools – 1,080'
- From MH2 to Manhole 96A under bridge near Old Hillsboro - 900'
- Dual lines in front of and in back of homes along Blue Springs Road – 2,400'
- Manhole 001 to pump station wet well - 200'
- Behind Hill and Madison Land properties -600'
- To Medical Office Building - 500'
- Key Drive, Lucas Lane, Lucas Ct., others at Hunterwood – 6,200'
- Old Natchez Country Club gravity lines 4,400'

Total of 17,480 ft. at @ $0.75/ft = $13,110

- Re-inspection and cleaning of following
  - All gravity lines along Moran Road to edge of Golf Course – 2,400'
  - Manhole 18A to 14 along creek parallel to Hillsboro - 800'

Estimate $1.50/ft due to jetting 3,200' @ $1.50 = $4,800

- Pressure test force mains
  - From PS behind homes to PS at Golf Course – 1,600'
  - PS at Golf Course to gravity line near Moran – 2,000'
  - Pump station to treatment plant - 200'

Should be less expensive, unless leaks found, allow $3,000 for test equipment

- Sheaffer time to select and manage contractors
  - 80 hours at $100 average cost = $8,000

Total cost of Video Inspection and testing $13,110+$4,800+$3,000+$8,000 = $28,900

3. Wet Weather Flow Measurement

- Anticipate CCLLC purchase portable flow meters, and Sheaffer staff would install them in various manholes as needed, and collect the data , rather than hiring a contractor for this work.
- Equipment needed:
  - Portable insert flow monitors with data logging: 2 @ $6,000 each = $12,000
  - Manhole confined space equipment (assume already purchased)
- Sheaffer time to install, monitor, maintain
  - 160 hours @ $100 average = $16,000

Total Cost for wet weather flow measurement= $12,000 + $16,000 = $28,000

4. Smoke testing

- At this point in time it is difficult to see how CCLLC could do the physical field work itself, due to limited staff, no equipment, and no experience doing this. Sheaffer will, however, need to budget for administrative and other contractor support, such as public notices, information, questions, and follow up.
- Contractor: Estimate that a three person contractor crew at $40/hour ave. hourly rate could complete the testing in 2 weeks, with Sheaffer support for notices and the public relations in general = $9,600
- Sheaffer time:
    - Contractor identification and contracts: 20 hours
    - Notification of customers: 40 hours
    - Field support while work in progress: 80 hours
    - Sheaffer cost 120 hours @ $100 average = $12,000
- Total smoke testing cost: $9,600 + $12,000 = $21,600

5. Report:
    - Review and evaluation of collected information: 40 hours
    - Refine and select repair methods: 40 hours
    - Cost estimates including preliminary contractor proposals: 40 hours
    - Summary report: 20 hours
    - Total cost: 160 hours @ $100 ave. cost = $16,000

ATTACHMENT A-2

ESTIMATED BUDGET FOR Cartwright Creek Treatment System
Program to Evaluate Repair and/or Replacement
7/31/08

This Program consists of the following major components:

1. Evaluation of Existing System Components ($20,000)
2. Completion of Preliminary Plan for Replacement System ($15,000)
3. Pump Station Preliminary Design ($23,000)

Total Cost of the Program: $50,000

1. Evaluation of Existing System Components

- Evaluate the condition and performance of existing major equipment items such as the aeration system, clarifier mechanism, tank walls, flow monitoring, disinfection, building components and grounds.
- Determine if the existing system will meet proposed treatment standards and/or modifications required for compliance
- Define scope of upgraded sludge handling system
- Determine upgrade and repair recommendations
- Determine if and how above upgrades can be accomplished keeping system in operation
- Determine if system can be expanded and how
- Preliminary cost estimates

Estimated engineering and drawing hours = 160 @ $125 average rate = $20,000

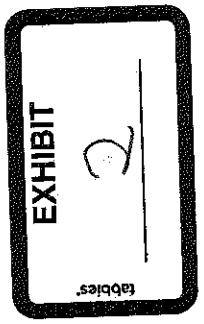
2. Completion of Preliminary Plan for Replacement System

- Preliminary design of new treatment system based upon MBR design
- Determine auxiliary equipment scope and include in design
- Evaluate cost effectiveness of reuse of existing system's components for bioreactors
- Determine required upgrades to building, power system, site.
- Complete preliminary drawings and functional equipment specs
- Preliminary construction cost estimate.

Estimated engineering and drawing hours = 120 @ $125 average rate = $15,000

3. Pump Station Preliminary Design

- Prepare preliminary engineering and drawings for new pump station consisting of submersible pumps in a concrete wet well.
- Soil boring to determine rock depth, soil conditions, groundwater
- Conceptual selection of pumps, SCADA, controls
- Obtain preliminary costs from contractors anticipating depth, shoring, groundwater handling
- Determine how system can be constructed while keeping existing pump station operating
- Construction cost estimates
- Estimated engineering and drawing hours 160 hours @ $125 = $20,000 plus $3,000 for soil borings and report = $23,000



Summary of Cartwright Creek Grassland Sewer Videos (Not Complete and Dry Weather Flows Only)
6/12/08

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
The following videos were taken in 2002 and 2003					
4	17F-17E	97	8" PVC		Some grease; no apparent infiltration
	17E-17D	179	8"PVC	178	There appears to be a mesh grid over the lines in the manhole or before the manhole.
	17D-17G	234	8" PVC		
	17D-17C	180	8" PVC		
	17C-17B	185	8" CI		
	17B-17A	301	8" PVC	MH 17	Looks like the mh by Sonic on N side Battlewood, a number of leaks in manhole concrete
	19A-19B	359	8" PVC		
	19A-19	72	8" PVC		
	19-18	75	8" PVC		Large leak at pipe joint to MH18
	10-9	279	8" PVC		
	8F-8E	329	8" PVC		
	8E-8D	73	8" PVC		8D Major leaks at pipe joints and manhole bottom
	8D-8C		8" PVC		Dirt in pipe; Could not get camera through; looks about half full with dirt and standing water; looks like this section is below Hillsboro Road
	8A-8B	200	8" PVC		8B shows daylight through manhole top
	8B-8C	192	8" PVC		
	8-8A	45	8" PVC		

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
5	3-2A	230	12" PVC		Lots of clean water coming from smaller pipe entering at MH. This could be coming from the line to ?, which crosses tributary to creek and wasn't televised. This needs to be checked out!
5	2-2A		12" DI	50	Got stuck didn't finish; verbal note on video to clean line
	2-1				Not inspected; verbal note on video to clean line
	3E-3D		8" PVC		Lots of grease and partial blockage at 89 ft; camera will not pass
	80-79	199	8" VCP		Leak at MH79 from direction of service connection, lots of clean water from service connection
	80-81	284	8" VCP		
	82-81		8" VCP	30	Roots and other material blocking pipe, not completed
	80-94	155	8" VCP		
5	94-95	306	8" VCP		
2	18A-18B	147	8" PVC		Medium quantity of clean water, consistent flow, coming from directdion 18B; at 18B there is a Y; 18B top is buried according to video comment; grease inside manhole; flow from parking lot direction is low; flow from stores is high
	18A-18	102	8" PVC	100	Leak in large crack just inside manhole 18; leaks around service line connection at this point too; many leaks around manhole and joint of pipe coming from 18A
	18-17A	45	8" PVC	45	Large leak at manhole 17A at pipe passage through manhole bottom
	17A-17	155	8" PVC		
	17-16	69	8" PVC		Lots of grease
	16-15	226	8" PVC	177	Joint at service connection very large leak

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
	15-14	211	8" PVC	62'	Service con with 1-2 gpm leak
	14-13	286	8" PVC		
	13-12	350	8" PVC		Lots grease at 320 or so
2	12-11	105	8" PVC		
	8-7		8" PVC		Stops after a few feet for a reason not explained; picked up on video 3
2	9-8		8" PVC		Stops at 116' for a reason not explained; see vcr tape; pipe is flowing half full which might make leaks from joints or service lines unseeable
3	11-10	172	8" PVC		Again pipe flowing at least half full making bottom of pipe and service line connections unseeable
	8-7	296	8" PVC		
	7-6	195	8" PVC		
	6-5	188	8" PVC	20	Offset joint that could be a leak when ground wet
	5-4	272	8" PVC	22	Service connection with 1-2 gpm leak
	4-3	208	8" PVC	189	Service connection with 1-2 gpm leak right at joint; lots of clean water coming from side line connection at MH3
1	6E-6D	170	8" VCP	30	Severe root clogging at service connection
	6D-6C	125	8" VCP	19	Service line with 1 gpm leak at joint
				101	Roots
				109	Service connection clogged solid with roots
				121	Roots
	6C-6B	251	8" VCP		
	6B-6A	105	8" VCP		
	6A-4C	137	8" VCP	103	Service connection with light leak, can't tell if at joint or not
				130	Offset Joint

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
6	89-90	355	8" VCP	350	Debris
6	89-88	332	8" VCP	45	Service conntection with 3 gpm leak at joint
				116	Service connection with 3 gpm leak coming from within sc
				118	Service connection with 1 gpm leak at joint
				140	Service connection with 5 gpm looks like at joint
				172	Root clogging at service connection, can't see inside it;
				260	Service connection with 1 gpm leak within connection
	87-88	80	8" VCP	67	Offset joints
	87-79	353	8" VCP	58	SC with roots inside, no apparent leak
				191	SC with 2 gpm leak from inside
6	83-82	338	8" VCP	55	SC with roots from joint, leaks?
				58	SC 1 gpm leak, can't tell from joint or inside
				167	SC 3 gpm leak from inside connection
				174	SC with roots from joint
					Comment can't get lid of MH 82 open
6	82-81				Comment that its clogged with roots
	77-79	288	8" VCP	32	Roots at joint on main line
				269	SC with 2 gpm leak, can't tell from joint or inside
					There is a lot of clean flow at MH77 given homes on line
	77-76	294	8" VCP		Clean water coming in from branch at 76
	76-75		8" VCP		
7	53-52	374	8" PVC		MH53 looks like a flow through on an angle, not according to Dan's markiup; there are no sewer drawins for this section;
	52-51	341	8" PVC		
	51-48	242	8" PVC		

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
	48-47	197	8" PVC		Gigantic drop connection at 47
8	4-4A	295	8" PVC	288	Sag in line;; MH 4A is buried; line was cleaned between two d consecutive shots of this line segment
	4-3B	330	8" PVC		Changes to clay just before manhole 3B
	4C-4B	300	8" VCP	188	Sc with 1 gpm leak from within SC
				294	Offset Joint
8	4B-3B	250	8" VCP	75	SC with 1 gpm leak from inside
	3B-3A	244	8" VCP	225	Cracked pipe with substantial leak
				241	Leaking joint and crack with large leaks
9	114-113	255	8" PVC		Can't locate exactly, no dwgs. Video says on key drive
	113-112	198	8" PVC		Can't locate exactly, no dwgs. Video says on key drive
	112-111	353	8" PVC		Can't locate exactly, no dwgs. Video says on key drive
	111-110	146	?		Can't locate exactly, no dwgs. Video says on key drive; manhole 111 here doesn't look same as that on previous segment
					Video says line is PVC, looks like VCP
	75-74	400	8" VCP	80	SC at 12 oclock with 3 gpm leak at joint
		Approx		82	SC at 12 oclock with 1 gpm leak at joint
				187	SC at 12 oclock with <1gpm leak at joint
				283	SC at 12 oclock with 3 gpm leak at joint
				295	Camera would not pass offset joint
					Tried in reverse from 74 going back

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
	73-72	346	8" VCP	53	SC at 12 oclcock with 3 gpm leak at joint
				157	SC at 12 oclock with 5 gpm leak from ??
				209	SC at 12 oclock with 5 gpm leak from joint
				221	SC at 12 oclock with 5 gpm leak from joint
				245	SC at 12 oclock with 2 gpm leak from joint
				311	SC at 12 oclock with 5 gpm leak from joint
				334	SC at 12 oclock with 5 gpm leak from joint
10	35-34	289	8" VCP	218	SC with 2 gpm of clean water from inside
	34-33 (3a?)		8" VCP	210	Severe grade change and heavy grease at service connection; could not complete survey
11	96A-96	26	16" DI		
	96-71C	75	16" DI		Leak in MH 71C, cracks in wall
	71C-71B	205	15" VCP		
	71B-71	200	15" VCP	104	5 gpm leak at joint; this could be happening many places along this segment and elsewhere where the pipes are flowing partially full; this is paralleling creek
				195	5 gpm leak in joint just upstream MH71
					The 15" outlet pipe on the other side of MH71 is almost completely submerged; the small line coming in from the NE is flowing clean water; can't see bottom of MH which is next to creek
	71-70	170	15" VCP		This is the 15" segment following above; the line is ½ or less full, not sure why it doesn't appear as full as above; they are using the jet cleaner in this video so maybe it was plugged
				167	2 gpm leak in joint just upstream of MH70

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
	70-66	146	8" DI		Tape says 8"; looks bigger as are upstream pips bigger
			VCP	95	Pipe type change
			PVC	139	Pipe type change
					Manhole lid was busted off
	2A-2	196	12" DI		Re-inspection after cleaning
	2-1	215	12" DI		Behind church on Hillsboro; lots of debris which they cleaned
12	72-71A	321	8" VCP	195	Service connection at 12 oclock; 2 gpm leaks at joint
				212	Service connection at 12 oclock, 2 gpm leaks at joint
				271	Service connection at 12 oclock, 5+ gpm leak at joint
				306	Service connection at 12 oclock, < 1 gpm leak from connection
	59-58	250	8" PVC		On Ash Grove Ct.
13	101A-101	73	10" PVC	33	Pipe material change
			10" DI	41	Pipe material change
			10" PVC		
	101-98	227	10" PVC		Some dips and sags in this line
	98-97	270	10" PVC		
	97-96	288	10" PVC		Daylight near manhole top, not in top
	141-140	191	8" PVC		Hunterwood Drive
	140-139	152	8" PVC	148	Sag in pipe
14	149-148	165	8" PVC		The entire length of seqment looks like the line has surcharged up to half full at some point
	148-146A	112	8" PVC		Same comment as above

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
	146A-146	84	8" PVC		
	146-145	235	8" PVC		Daylight at manhole top
	145-144	307	8" PVC		
	139-138	150	8" PVC		
	138-137	151	8" PVC		
	137-136	170	8" PVC		
	136-135	76	8" DI		Was surcharged, they cleaned it.
15	135-108	150	8" PVC		Had to clean prior to inspection; some daylight around lid
	108-106	146	8" PVC		At MH106, looks like the line from Key Drive may have some clean flow
	106-105	265	8" VCP		Jetted out debris and did twice;
	105-104	130	8" PVC		
	104-103	100	10" CI		
	103-102	87	10" PVC		
	102-101A	133	10" PVC		
16	86-85	269	8" VCP		In front of condo 147
			8" PVC	20	Pipe type change
			8" VCP	26	Pipe type change
				31	Roots at joint
				158	SC with 1 gpm leak
	85-84	330	8" VCP		Too much clean flow for few homes on this line
				150	SC with 1 gpm leak but can't from upstream joint
				195	Cracked pipe with small leak
				249	SC with root clog; verbal note that will be root cut
	40-39	316	8" VCP		
	39-33	204	8" VCP		

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
	33-32	107	8" PVC		MH32 has buried top
17	38-37	229	8" PVC		MH38 was clogged with rocks and sand but they cleaned
				5	SC with 1 gpm leak from?
				136	SC with 1 gpm leak from?
				201	SC with 1 gpm leak from?
	37-36	358	8" PVC	236	SC with 1 gpm leak from ?
	36-35	291	8" PVC	141	SC with 1 gpm leak from ?
				245	SC with 3 gpm leak from ?
18	4D-4C	187	8" DI		Heavy wall buildup entire segment, almost looks like corrosion
				24	"Tuburculation"??
	4D-5		8" DI		Same comment on heavy wall buildup; this must be from Old Natchez
					Couldn't continue more than 17 ft going upstream from MH4
	66-65	134	15" VCP		MH65 evidence of severe surcharte
	65-47	279	15" VCP		
19	46-46A	264	15" VCP		Relined in 2006
	46-43	286	15" VCP		Relined in 2006
	43-42	220	15" VCP		Relined in 2006
	42-01	319	15" VCP		Relined in 2006
					Manholes, 46A, 46,43, 42, 01 also lined in 2006
20	47-46A	323	15" VCP	116	SC with BIG quantity of water from joint

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
				159	SC with 1 gpm leak from up the connection
	50-49	205	8" PVC		
	49-48	215	8" PVC		
	45A-45	150	8" PVC		
	45-44	164	8" PVC		
	44-43	267	8" PVC		This line has been full or plugged, very built up walls, dark
					Only 4 homes on this line but looks like a steady 3 gpm flow pouring into manhole 43; looks like infiltration from somewhere
The Following Videos were taken in November 2006					
	001-001A	348	8" VCP		For some reason, the video calls this manhole 001A 004
				23	Leak at top of joint, 3 gpm
				61	BIG leak from entire joint
				143	5 gpm leak from joint
				154	2 gpm at joint
				159	2 gpm at joint
					Manhole 001A was not inspected
					Other joints on this segment have discoloration and look like they are bulging
	001-LS		15" VCP		Could not get more than a few feet into line due to gravel and debris on bottom of pipe; does not show up on video
	01-02	95	8" VCP		Backyard of 1035 Boxwood
					Looks like too large amount of flow
					Again, MH2 not inspected
	02-03	173	12" DI	5,9	Multiple cracks outside MH
					Entire line has lots of mineral deposits

Video #	Run MH #	Total Ft	Size-Type	Location	Description or comments
				89	Mineral deposits at joint; he says might have infiltration there, but it must be above river
				109	Same comment as above
				129	Same comment as above
				149	Same comment as above
	03-04	368	12" VCP	8	Deposit at joint, possible leak
				215	Gasket coming out of joint or ?
				270	Same comment as above
	34-3A	295	8" VCP	206	Huge leak and grease collection at SC
				285	5 gpm + clean liquid coming from SC
					After 206 lens is clouded and difficult to see
	3A-2	177	8" VCP	33	Crack without leak
					Lots of debris near manhole 2, almost didn't get camera through
					I believe MH 2 is same as 01 on other videos done by this firm; same as manhole 1D on earlier drawings; difficult to tell
					No sound on this video
	3A-3B	242	8" VCP	222	Large crack and large leak near joint.
				239	Large crack and leak just before MH3A