## **Unverified Tank Histories EXSUM**

As part of the negotiation of the Administrative Order on Consent (AOC), the U.S. Environmental Protection Agency (EPA) and State of Hawai'i Department of Health (DOH) requested the release of all documentation related to Red Hill. In full transparency, the Navy/DLA submitted hundreds of documents for the legal public record. A hand full of those documents turned out to be unverified Tank Histories. These histories are not marked nor stamped in any way and have no way of being verified.

In order to reconcile them, the Navy/DLA did its due diligence and it turned out that these same unverified histories were inappropriately appended to reports dating back decades and eventually became self-referencing in latter reports (although still unverified) and treated like source documents. It also became apparent that latter references further removed what little context existed which resulted in gross misrepresentation of the data. Since the data can't be proven nor disproven, the Navy/DLA felt it appropriate to treat it at face value and consistently in order to be objective and conservative.

All that being said, the unverified tank histories vary in start and end dates. Some begin with the actual construction starting in 1940 and others not until the 1950s. The last entries also vary and go into the 1980s. It may or may not be coincidental since official regulatory reporting requirements began in 1988 with the Clean Water Act.

The majority of the entries focus on clean, inspect, and repair evolutions and are very vague notes on observations and actions. During that post war, pre-Regulatory period of time, standards and testing methods were very different. One prime example is the use of water to leak test the tanks. They would fill the tanks up with water and men in boats would identify areas in need of repair. This is one of the misleading points of some current leak history summaries because they don't make the distinction between whether it was water or fuel being reported.

Another contextual issue is that these same current leak history summaries don't distinguish between an uncontrolled release (escapes into environment) and controlled (captured by internal leak detection system). This is referring to entries documenting monitoring of the original, mechanical leak detection system call Tell-tales. The tanks were designed with Tell-tale pipes that enabled monitoring/collecting fuel that bypassed the steel liner and became trapped between it and the concrete in zones every five feet. The Tell-tale piping terminated in the lower tunnel where it could be routinely monitored.

To summarize the vagueness and provide context for reading the unverified histories:

- Some entries don't specify whether testing was done with water or fuel
- Some entries don't specify whether volume change was Tell-tale related or not
- Some entries provide no volumes nor differentiate between tank settling or some type of controlled/uncontrolled release

• Some entries provide rates, but with no duration

The following is a summary of the compiled table, limited to the points listed above:

		Number of Entries	Number of Entries	Total Volume (gal)	Total Volume (gal)
Tank 01	Unknown	10		45,388	
	Tell-tale		10		22,100
Tank 02	Unknown	0		н	
	Tell-tale		3		10
Tank 03	Unknown	1		4,260	
	Tell-tale		0		=
Tank 04	Unknown	0		*	
	Tell-tale		0		.=
Tank 05	Unknown	1		27,000	
	Tell-tale		0		
Tank 06	Unknown	0		-	
	Tell-tale		0		
Tank 07	Unknown	1		6,505	
	Tell-tale		1		-
Tank 08	Unknown	0		-	
	Tell-tale		0		-
Tank 09	Unknown	1		1,900	
	Tell-tale		1		1,500
Tank 10	Unknown	1		3,123	
	Tell-tale		1		=
Tank 11	Unknown	1		25,628	
	Tell-tale		0		-
Tank 12	Unknown	1		4,280	
	Tell-tale		0		:=
Tank 13	Unknown	0			
	Tell-tale		0		-
Tank 14	Unknown	0		-	
	Tell-tale		0		-
Tank 15	Unknown	1		-	
	Tell-tale		0		-
Tank 16	Unknown	1		-	
	Tell-tale		4		28,746
Tank 17	Unknown	1		1,420	
	Tell-tale		2		1
Tank 18	Unknown	0		n=9	
	Tell-tale		0		-
Tank 19	Unknown	0		-	
	Tell-tale		0		1
Tank 20	Unknown	0		( <b>-</b> )	
	Tell-tale		0		(
	Totals:	20	22	119,504	52,358

From the table, it can be seen that 7 of the 20 tanks have no documented entries in the histories and that the Tell-tale system accounts for almost a third of the total possible volume. Of the 13 tanks with entries, 20 unknown releases totaled 119,504 gallons and 22 were Tell-tales which totaled 52,358 gallons.

## References:

2014 EPA (Whitacre) Unverified Histories Submission: These were anonymously released/circulated unverified histories that contained the original Tech Library Unverified Histories and additional, more recent unverified histories.

Tech Library Unverified Histories: These are original histories that are unstamped/unverified, but were incorrectly cited as references in subsequent reports and became self-verified/referencing.

1949 Bechtel Report: Appears to be valid document, but due to age there is no supporting documentation showing acceptance, concurrence, or verification by the US Navy.

2008 Groundwater Protection Plan: This is a summary of the Tech Library Unverified Histories, but not a certification.