Underground Storage Tank Closure Report
UST Two
U.S. Navy Department of Defense
Harvey Point
Hertford, North Carolina
ATEC Project No. 35-07-92-00079

ATEC Environmental Consultants
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November, 1992

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EXECUTIVE SUMMARY

ATEC was contracted by the U.S. Navy Department of Defense (D.O.D.) to perform assessment activities at one underground storage tank (UST) location at the Harvey Point facility located in Hertford, North Carolina. The underground storage tank was closed by removal on September 3, 1992 by Oil Equipment Sales and Services Company (OESSCO).

Soil samples were collected from the bottom and sides of the excavation and were submitted for chemical analysis. The Division of Environmental Management (DEM) requires soil samples be analyzed for Total Petroleum Hydrocarbons (TPH) using California Modified Method 8015 with 5030 and 3550 to satisfy regulations 15ANCAC 2N .0802, .0803, and .0805. The analytical results indicate soil samples collected from UST number two do not contain petroleum hydrocarbons above the NCDEM action level of 10 parts per million (ppm).

A soil sample from the excavation was collected and analyzed to evaluate disposal criteria. These analyses indicate that the soil should be disposed in a NCDEM approved manner. This may include disposal by landfill, incineration or land farming.

ATEC recommends that the D.O.D. evaluate ground water quality in the vicinity of UST number two. This evaluation would include the installation of monitoring wells, ground water sampling and analysis, and evaluation of potential receptors.

UNDERGROUND STORAGE TANK CLOSURE ASSESSMENT REPORT

U.S. Navy Department of Defense
Harvey Point
Hertford, North Carolina
ATEC Project No. 35-07-92-00079

1.0 INTRODUCTION

The U.S. Navy, D.O.D contracted ATEC to conduct an underground storage tank (UST) closure assessment at the D.O.D. Harvey Point Facility in Hertford, North Carolina (the site). The excavation of one UST was supervised by ATEC.

1.1 Purpose

The purpose of this assessment was to evaluate the soil quality in the area of the UST location, and supervise the removal of the UST. This assessment report presents our procedures, findings, conclusions and recommendations for the UST number two tank excavation.

1.2 Scope of Services

The scope of services provided included the following:

- Supervision of the removal of the UST.
- Soil sampling along the bottom and side walls of the tank excavation.
- Analysis of soil samples using EPA Method 8015 (3550 and 5030).
- Data compilation and report preparation.

2.0 SITE CHARACTERIZATION

2.1 Physical Site Conditions

The U.S. Navy D.O.D. facility is located in Hertford, North Carolina (see Figure 1). The UST excavation is located near building 1-19 (see Figure 1). UST number two was 550 gallons in size. The D.O.D. removed all fluids from this tank prior to excavation.

2.2 Field Observations

2.2.1 UST Removal

At the request of the D.O.D., OESSCO excavated, removed and disposed of UST number two on September 3, 1992. ATEC was contracted to supervise the removal of this tank. The location of the site is shown on Figure 1 while a detailed excavation site map is shown in Figure 2.

Prior to tank closure all oil was removed from the tank. This oil was removed by W.L. Black and Associates and disposed of off-site prior to the UST removal.

UST number two was strapped down to a concrete slab approximately eight feet below grade. This concrete slab could not be removed from the excavation as its lateral extent could not be ascertained.

After removal of the UST by OESSCO, ATEC visually inspected the tank for obvious structural defects, leaking connections, rusted areas and holes. UST number two was in good condition (refer to photograph P1 in Appendix A). OESSCO removed the UST from the excavation, cleaned, and disposed of the tank. Table 1 summarizes the tank inspection data. A Certificate of Disposal is not available from OESSCO at this

time as the tanks are currently at their site awaiting destruction. These tanks will be destroyed and sold for scrap metal.

2.2.2 Soil Sampling

ATEC collected soil samples from the walls and bottom of the UST excavation. The excavation extended to approximately eight feet below grade. After the tank was removed, clean fill was placed in the excavation.

All samples collected were field screened using an HNU photoionization detector (PID) for the presence of petroleum contamination. The PID provides a relative evaluation in parts per million (ppm) for the presence of hydrocarbons. ATEC calibrated the PID with 100 ppm isobutylene prior to the sample screening process. PID readings ranged from 6.4 ppm to 8.2 ppm. The PID readings are summarized in Table 2.

The samples collected from the excavation were analyzed for total petroleum hydrocarbons (TPH) using the Modified EPA Method 8015, which includes the Purge and Trap (5030) and Extraction (3550) Methods. Additionally, one sample from each excavation was analyzed by EPA Method 8020 and by TCLP for lead content.

3.0 FINDINGS

The laboratory results indicate that the soil samples obtained from the UST excavation contained non-detectable TPH levels. The results of the soil analysis are shown in Appendix B and summarized in Table 3.

The NCDEM has established soil action levels at 10 ppm of TPH. Soils with TPH concentrations of 10 ppm or greater require additional assessment activities and remediation.

4.0 CONCLUSIONS

ATEC has completed the closure, monitoring , and assessment of UST number two at the subject facility. Based on the field activities, site observations, and soil samples analyzed, ATEC concludes the following:

- The soil in the vicinity of UST number two has not been impacted by the former UST.

- Soil analysis indicated TPH concentrations are non-detectable in the UST area.

5.0 RECOMMENDATIONS

Based upon the data gathered during tank removal activities ATEC recommends the following:

- No further action in the area of this UST is warranted.

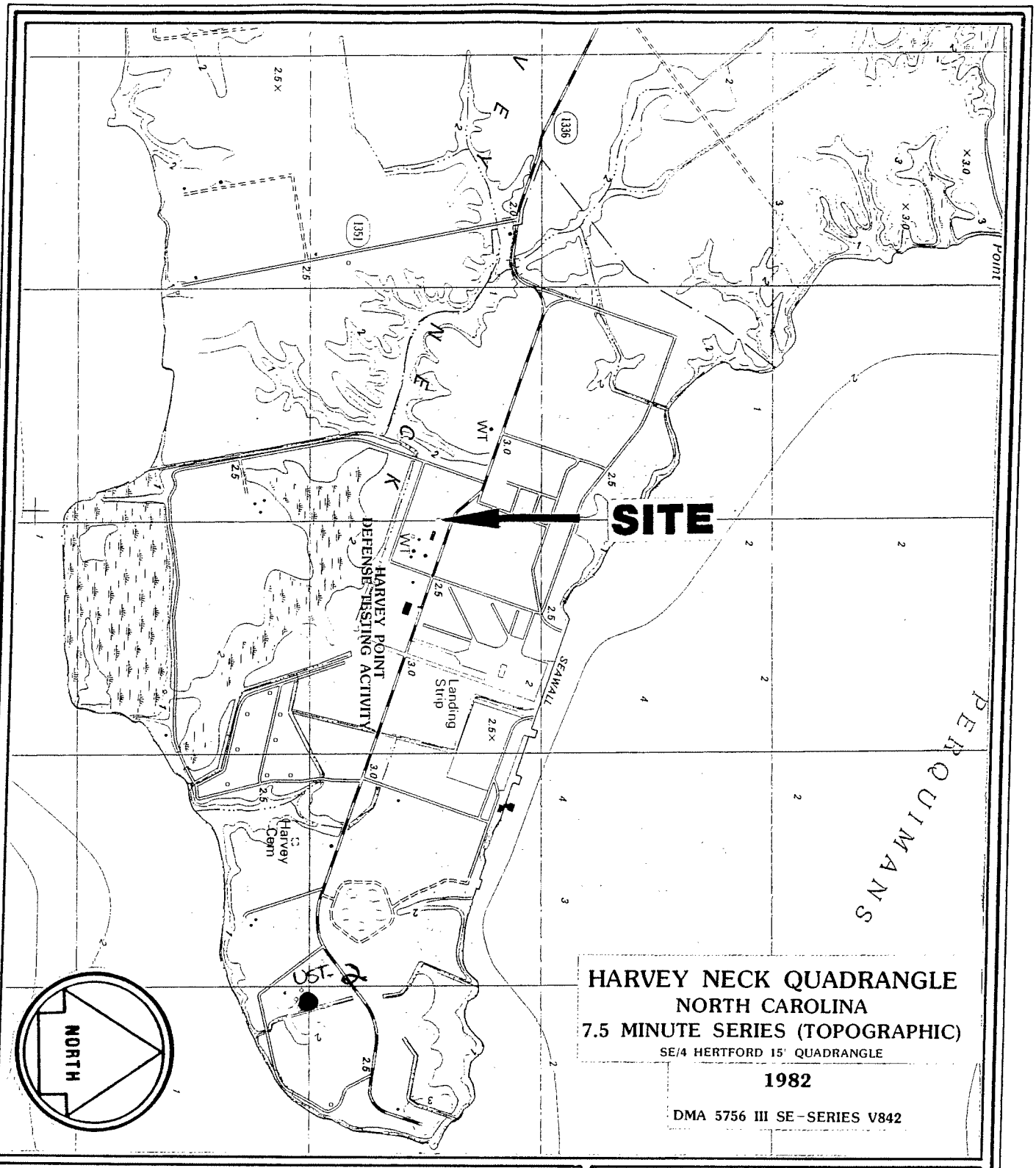
6.0 REMARKS

The recommendations, findings, and conclusions contained in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

FIGURES

FIGURE 1

SITE LOCATION MAP



SITE LOCATION MAP
U.S. NAVY D.O.D.
HARVEY POINT
HERTFORD, NORTH CAROLINA

ATEC Environmental Consultants
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Raleigh, North Carolina 27613
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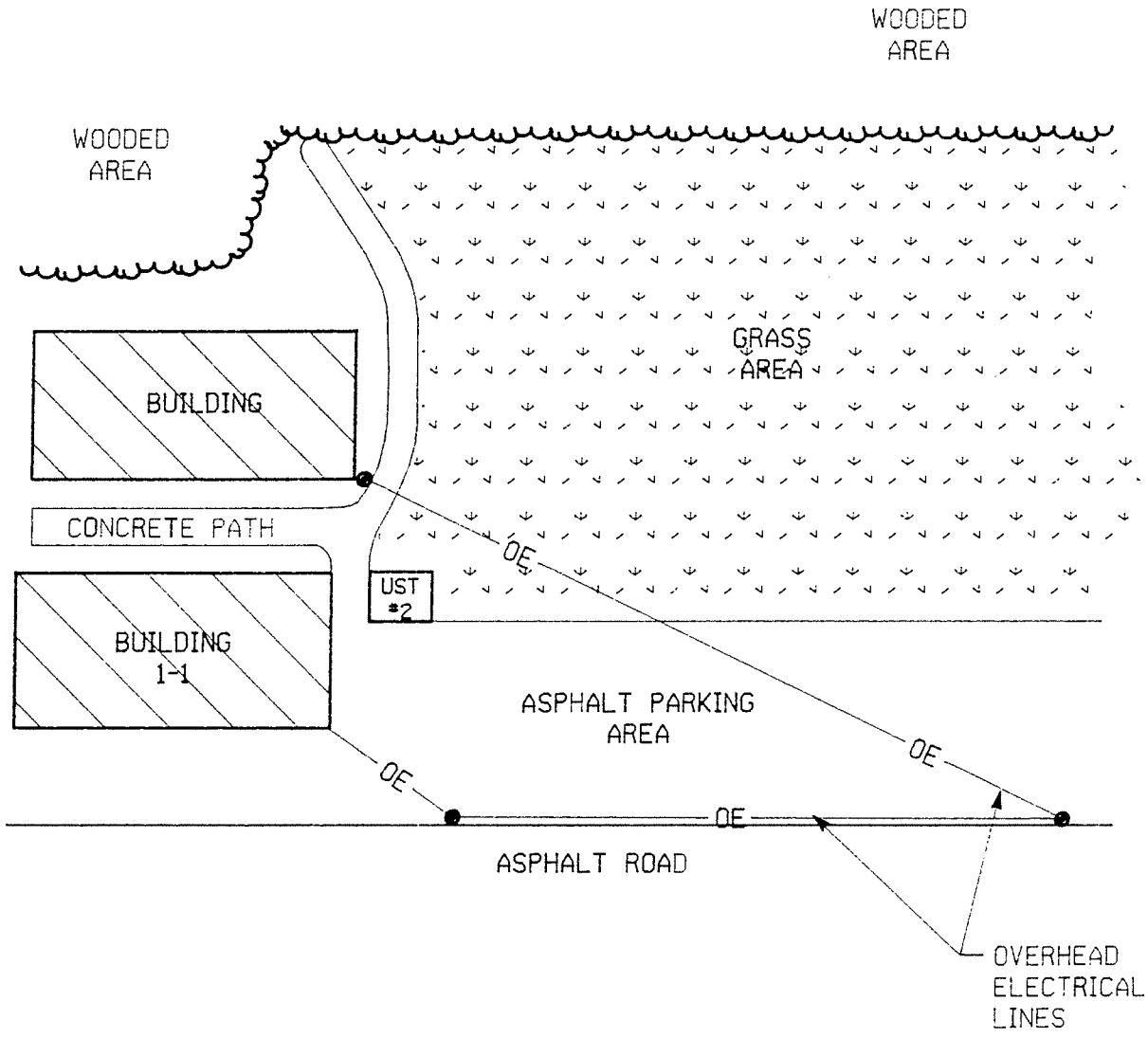
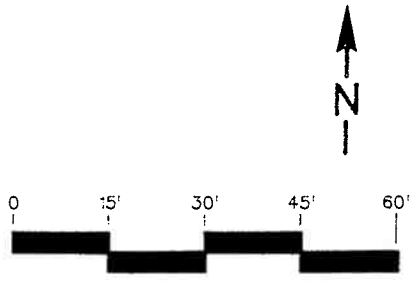
SCALE:	DRAWN BY:	CHECKED BY:	DATE:	PROJECT NO.	FIGURE NO.
1 in= 0.5 mi.	JAF	PJW	09/15/92	35-07-92-00079	1

FIGURE 2

SITE MAP





TITLE

FIGURE 2
SITE MAP FOR UST #2
BUILDING 1-1
HARVEY POINT DEPARTMENT OF DEFENSE
HERTFORD, NORTH CAROLINA

ATEC Environmental Consultants

CAD FILE	PREP. BY	REV. BY	DATE	PROJECT NO.
125086.DGN	JAF	PJW	10-28-92	00079

TABLES

TABLE 1

UST INSPECTION DATA
U.S. NAVY D.O.D.
HARVEY POINT
HERTFORD, NORTH CAROLINA
ATEC PROJECT NO.: 35-07-92-00079

Tank Number	Location	Capacity (Gallons)	Const. Material	Product Stored	Date Removed	Condition
UST-2	Bldg. 1-1	550	Steel	Fuel Oil	09/03/92	Good

TABLE 2

PID READINGS
U.S. NAVY D.O.D.
HARVEY POINT
HERTFORD, NORTH CAROLINA
ATEC PROJECT NO.: 35-07-92-00079

Sample Location	PID Readings
UST-2, S-3	8.2 ppm
UST-2, S-4	6.4 ppm

TABLE 3

SUMMARY OF ANALYSES FOR SOIL
UNDERGROUND STORAGE TANK INSPECTION DATA
U.S. NAVY D.O.D.
HARVEY POINT
HERTFORD, NORTH CAROLINA
ATEC PROJECT NO.: 35-07-92-00079

Station ID	TPH (ppm) Reading Purge and Trap	TPH (ppm) reading (Extraction)*	8020 (Total BTEX)	TCLP Lead
UST-2, S-3	ND	ND	NA	NA
UST-2, S-4	ND	ND	ND	ND

ND = Not Detected
NA = Not Analyzed

APPENDIX A

PHOTOGRAPHIC DOCUMENTATION

P1 UST NUMBER TWO AFTER EXCAVATION. THE HOLE WAS MADE DURING THE REMOVAL PROCESS. THE REST OF THE TANK BODY WAS IN GOOD CONDITION.

APPENDIX B

LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS

ATEC Associates, Inc.
1300 Williams Drive, Suite A
Marietta, Georgia 30066-6299
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CLIENT: ATEC Associates, Inc.

CHECKED SEP 25 1992

ATTENTION: Joan Finkbeiner

CLIENT PROJECT #: 35-07-92-00079 Harvey Point, U.S. Navy

INVOICE PROJECT #: 35-07-92-00079

LAB PROJECT #: 4728 DATE SAMPLED: 09/02/92

MATRIX: Soil DATE SAMPLE RECEIVED: 09/08/92

METHOD: Modified 8015-3550 Extraction DATE SAMPLE ANALYZED: 09/12/92

UNITS: mg/kg (ppm) DATE REPORT: 09/16/92

SAMPLE I.D.	STATION	DETECTION LIMIT	PARAMETER TOTAL PETROLEUM HYDROCARBONS CONC.	RANGE
40876	S-1	20	71	Diesel
40877	S-2	20	ND	
40878	S-3	20	ND	
40879	S-4	20	ND	

ND-None Detected

Respectfully submitted,

Randy Brown
CHEMISTRY/LABORATORY DIVISION

Reviewed by: JH

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ATTENTION: Joan Finkbeiner

CLIENT PROJECT #: 35-07-92-00079 Harvey Point, U.S. Navy

INVOICE PROJECT #: 35-07-92-00079

LAB PROJECT #: 4728 DATE SAMPLED: 09/02/92

MATRIX: Soil DATE SAMPLE RECEIVED: 09/08/92

METHOD: Modified 8015-5030 Purge & Trap DATE SAMPLE ANALYZED: 09/08/92

UNITS: mg/kg (ppm) DATE REPORT: 09/16/92

SAMPLE I.D.	STATION	DETECTION LIMIT	PARAMETER TOTAL PETROLEUM HYDROCARBONS CONC. RANGE
40876	S-1	5	ND
40877	S-2	5	ND
40878	S-3	5	ND
40879	S-4	5	ND

ND-None Detected

Respectfully submitted,

Randy Brown
CHEMISTRY LABORATORY DIVISION

Reviewed by: JH

ATEC Associates, Inc.
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BLK
CHECKED SEP 25 1992

CLIENT: ATEC Associates, Inc.

ATTENTION: Joan Finkbeiner

CLIENT PROJECT #: 35-07-92-00079 Harvey Point, U.S. Navy

INVOICE PROJECT #: 35-07-92-00079

LAB PROJECT #: 4728 DATE SAMPLED: 09/02/92

MATRIX: Soil DATE SAMPLE RECEIVED: 09/08/92

METHOD: EPA 8020 DATE SAMPLE ANALYZED: 09/08/92

UNITS: mg/kg (ppm) DATE REPORT: 09/16/92

PARAMETER	DETECTION LIMIT	SAMPLE I.D. LAB:	40877	40879
		STATION:	S-2	S-4
Benzene	0.01		ND	ND
Toluene	0.01		ND	ND
Ethylbenzene	0.01		ND	ND
Total Xylenes	0.01		ND	ND
Chlorobenzene	0.01		ND	ND
1,3-Dichlorobenzene	0.01		ND	ND
1,4-Dichlorobenzene	0.01		ND	ND
1,2-Dichlorobenzene	0.01		ND	ND

ND-None Detected

Respectfully submitted,

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CHECKED SEP 25 1992

CLIENT: ATEC Associates, Inc.

ATTENTION: Joan Finkbeiner

CLIENT PROJECT #: 35-07-92-00079 Harvey Point, U.S. Navy

INVOICE PROJECT #: 35-07-92-00079

LAB PROJECT #: 4728 DATE SAMPLED: 09/02/92

MATRIX: Leachate DATE SAMPLE RECEIVED: 09/08/92

UNITS: mg/L (ppm) DATE SAMPLE EXTRACTED: 09/09/92

DATE REPORT: 09/16/92 DATE SAMPLE ANALYZED: 09/10/92

METHOD: TOXICITY CHARACTERISTIC LEACHING PROCEDURE(TCLP)-1311

PARAMETER TCLP METALS	METHOD*	DETECTION LIMIT	SAMPLE I.D. LAB:	40877	40879
			STATION:	S-2	S-4
Lead	7420	0.05		ND	ND

*SW-846 Test Methods

ND-None Detected

Respectfully submitted,

Randy Braun

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Reviewed by: JH