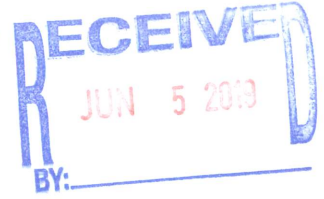


Weld Laboratories  
 1527 1st Avenue  
 Greeley, CO 80631

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**BILL TO**

Red Hawk Petroleum  
 1250 Wood Branch Park Drive Ste 400  
 Houston, TX 77079

1.60.004 STAUDINGER 1-31H

5718-WOI-Contract Labor & Services

DATE	INVOICE #
5/30/2019	19-38035

## Invoice

TERMS	DUE DATE
Net 30	6/29/2019

LAB NO.	CLIENT	DESCRIPTION	QTY	RATE	AMOUNT
E19136-3	Staudinger 1-31H	Total Recoverable Petroleum Hydrocarbons - SGT-HEM "Oil and Grease"	7	63.00	441.00
"	Staudinger 1-31H	BTEX and Gas+Diesel Range Organics (GRO+DRO) or (BTEX/TVPH/TEPH)	7	197.00	1,379.00

<b>Total</b>	<b>\$1,820.00</b>
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Sampling procedures can affect the value of analytical results – customers are advised to use appropriate sampling protocol to ensure samples are truly representative of the bulk sample.

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May 21, 2019

Red Hawk Petroleum  
1250 Wood Branch Park Drive Ste 400  
Houston, TX 77079

Laboratory No.: E19136-3A

Project: Crumley

Sample: #1

Location: Staudinger 1-31H

## Analyses performed according to methods in notes below

	Results	Units	Surr Rec. (%)	PQL (soil)
TRPH (ORO, Oil and Grease)	58	mg/kg – ppm	78.6	~167 ppm
TEH (DRO)	U	mg/kg - ppm	101.4	~3 ppm
TVH (GRO)	U	µg/kg - ppb	119.8	~500 ppb
Benzene	U	µg/kg - ppb	119.8	~5 ppb
Toluene	U	µg/kg - ppb	119.8	~5 ppb
Ethyl-benzene	U	µg/kg - ppb	119.8	~5 ppb
m,p-Xylene	U	µg/kg - ppb	119.8	~10 ppb
o-Xylene	U	µg/kg - ppb	119.8	~5 ppb
Sat. Paste pH	NA	SI	NA	
Sat. Paste EC	NA	mS/cm	NA	
Sat. Paste Saturation%	NA	%	NA	
Sat. Paste TDS	NA	mg/L	NA	
Sat. Paste SAR	NA	--	NA	

## Notes:

TRPH = Total Recoverable Petroleum Hydrocarbons (EPA 1664 or SM5520F Soxhlet extracted SGT-HEM)

DRO = Diesel Range Organics, GRO = Gas Range Organics, ORO = Oil Range Organics

TVH = Total Volatile Hydrocarbons (C6-C10 EPA 8015, EPA 5030/5035 purge and trap)

TEH = Total Extractable Hydrocarbons (Diesel #2 C11-C28, EPA Method 8015 solvent extraction)

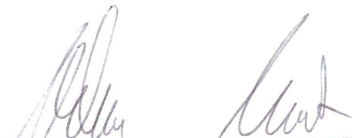
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes (EPA 8015, EPA 5030/5035 purge and trap)

VOC = Volatile Organic Compounds (EPA 8260B, EPA 5030/5035 purge and trap)

Soils always run as received but reported on a dry weight basis (mg/kg-dry-wt)

Saturated Paste methods: Gavlak et al. "Soil, Plant, and Water reference methods for the western region"

U = Compound analyzed but not detected, NA = Not Applicable or Not Analyzed

  
\_\_\_\_\_  
Project Manager

5-24-19  
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Date

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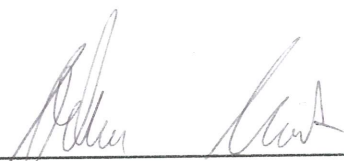
Laboratory No.: E19136-3B                      Project: Crumley  
Sample: #2    Location: Staudinger 1-31H

## Analyses performed according to methods in notes below

	Results	Units	Surr Rec. (%)	PQL (soil)
TRPH (ORO, Oil and Grease)	593	mg/kg – ppm	78.6	~167 ppm
TEH (DRO)	U	mg/kg - ppm	101.8	~3 ppm
TVH (GRO)	U	µg/kg - ppb	104.8	~500 ppb
Benzene	U	µg/kg - ppb	104.8	~5 ppb
Toluene	U	µg/kg - ppb	104.8	~5 ppb
Ethyl-benzene	U	µg/kg - ppb	104.8	~5 ppb
m,p-Xylene	U	µg/kg - ppb	104.8	~10 ppb
o-Xylene	U	µg/kg - ppb	104.8	~5 ppb
Sat. Paste pH	NA	SI	NA	
Sat. Paste EC	NA	mS/cm	NA	
Sat. Paste Saturation%	NA	%	NA	
Sat. Paste TDS	NA	mg/L	NA	
Sat. Paste SAR	NA	--	NA	

## Notes:

TRPH = Total Recoverable Petroleum Hydrocarbons (EPA 1664 or SM5520F Soxhlet extracted SGT-HEM)  
DRO = Diesel Range Organics, GRO = Gas Range Organics, ORO = Oil Range Organics  
TVH = Total Volatile Hydrocarbons (C6-C10 EPA 8015, EPA 5030/5035 purge and trap)  
TEH = Total Extractable Hydrocarbons (Diesel #2 C11-C28, EPA Method 8015 solvent extraction)  
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes (EPA 8015, EPA 5030/5035 purge and trap)  
VOC = Volatile Organic Compounds (EPA 8260B, EPA 5030/5035 purge and trap)  
Soils always run as received but reported on a dry weight basis (mg/kg-dry-wt)  
Saturated Paste methods: Gavlak et al. "Soil, Plant, and Water reference methods for the western region"  
U = Compound analyzed but not detected, NA = Not Applicable or Not Analyzed

  
\_\_\_\_\_  
Project Manager

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Red Hawk Petroleum  
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Laboratory No.: E19136-3C  
Sample: #3

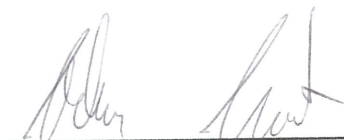
Project: Crumley  
Location: Staudinger 1-31H

## Analyses performed according to methods in notes below

	Results	Units	Surr Rec. (%)	PQL (soil)
TRPH (ORO, Oil and Grease)	914	mg/kg – ppm	78.6	~167 ppm
TEH (DRO)	U	mg/kg - ppm	110.0	~3 ppm
TVH (GRO)	U	µg/kg - ppb	101.8	~500 ppb
Benzene	U	µg/kg - ppb	101.8	~5 ppb
Toluene	U	µg/kg - ppb	101.8	~5 ppb
Ethyl-benzene	U	µg/kg - ppb	101.8	~5 ppb
m,p-Xylene	U	µg/kg - ppb	101.8	~10 ppb
o-Xylene	U	µg/kg - ppb	101.8	~5 ppb
Sat. Paste pH	NA	SI	NA	
Sat. Paste EC	NA	mS/cm	NA	
Sat. Paste Saturation%	NA	%	NA	
Sat. Paste TDS	NA	mg/L	NA	
Sat. Paste SAR	NA	--	NA	

### Notes:

TRPH = Total Recoverable Petroleum Hydrocarbons (EPA 1664 or SM5520F Soxhlet extracted SGT-HEM)  
DRO = Diesel Range Organics, GRO = Gas Range Organics, ORO = Oil Range Organics  
TVH = Total Volatile Hydrocarbons (C6-C10 EPA 8015, EPA 5030/5035 purge and trap)  
TEH = Total Extractable Hydrocarbons (Diesel #2 C11-C28, EPA Method 8015 solvent extraction)  
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes (EPA 8015, EPA 5030/5035 purge and trap)  
VOC = Volatile Organic Compounds (EPA 8260B, EPA 5030/5035 purge and trap)  
Soils always run as received but reported on a dry weight basis (mg/kg-dry-wt)  
Saturated Paste methods: Gavlak et al. "Soil, Plant, and Water reference methods for the western region"  
U = Compound analyzed but not detected, NA = Not Applicable or Not Analyzed



Project Manager

5-24-19

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May 21, 2019

Red Hawk Petroleum  
1250 Wood Branch Park Drive Ste 400  
Houston, TX 77079

Laboratory No.: E19136-3D  
Sample: #4

Project: Crumley  
Location: Staudinger 1-31H

### Analyses performed according to methods in notes below

	Results	Units	Surr Rec. (%)	PQL (soil)
TRPH (ORO, Oil and Grease)	73	mg/kg - ppm	78.6	~167 ppm
TEH (DRO)	U	mg/kg - ppm	93.2	~3 ppm
TVH (GRO)	U	µg/kg - ppb	93.5	~500 ppb
Benzene	U	µg/kg - ppb	93.5	~5 ppb
Toluene	U	µg/kg - ppb	93.5	~5 ppb
Ethyl-benzene	U	µg/kg - ppb	93.5	~5 ppb
m,p-Xylene	U	µg/kg - ppb	93.5	~10 ppb
o-Xylene	U	µg/kg - ppb	93.5	~5 ppb
Sat. Paste pH	NA	SI	NA	
Sat. Paste EC	NA	mS/cm	NA	
Sat. Paste Saturation%	NA	%	NA	
Sat. Paste TDS	NA	mg/L	NA	
Sat. Paste SAR	NA	--	NA	

### Notes:

TRPH = Total Recoverable Petroleum Hydrocarbons (EPA 1664 or SM5520F Soxhlet extracted SGT-HEM)  
DRO = Diesel Range Organics, GRO = Gas Range Organics, ORO = Oil Range Organics  
TVH = Total Volatile Hydrocarbons (C6-C10 EPA 8015, EPA 5030/5035 purge and trap)  
TEH = Total Extractable Hydrocarbons (Diesel #2 C11-C28, EPA Method 8015 solvent extraction)  
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes (EPA 8015, EPA 5030/5035 purge and trap)  
VOC = Volatile Organic Compounds (EPA 8260B, EPA 5030/5035 purge and trap)  
Soils always run as received but reported on a dry weight basis (mg/kg-dry-wt)  
Saturated Paste methods: Gavlak et al. "Soil, Plant, and Water reference methods for the western region"  
U = Compound analyzed but not detected, NA = Not Applicable or Not Analyzed

  
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Project Manager

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May 21, 2019

Red Hawk Petroleum  
1250 Wood Branch Park Drive Ste 400  
Houston, TX 77079

Laboratory No.: E19136-3E      Project: Crumley  
Sample: #5      Location: Staudinger 1-31H

## Analyses performed according to methods in notes below

	Results	Units	Surr Rec. (%)	PQL (soil)
TRPH (ORO, Oil and Grease)	79	mg/kg - ppm	78.6	~167 ppm
TEH (DRO)	U	mg/kg - ppm	105.6	~3 ppm
TVH (GRO)	U	µg/kg - ppb	100.2	~500 ppb
Benzene	U	µg/kg - ppb	100.2	~5 ppb
Toluene	U	µg/kg - ppb	100.2	~5 ppb
Ethylbenzene	U	µg/kg - ppb	100.2	~5 ppb
m,p-Xylene	U	µg/kg - ppb	100.2	~10 ppb
o-Xylene	U	µg/kg - ppb	100.2	~5 ppb
Sat. Paste pH	NA	SI	NA	
Sat. Paste EC	NA	mS/cm	NA	
Sat. Paste Saturation%	NA	%	NA	
Sat. Paste TDS	NA	mg/L	NA	
Sat. Paste SAR	NA	--	NA	

### Notes:

TRPH = Total Recoverable Petroleum Hydrocarbons (EPA 1664 or SM5520F Soxhlet extracted SGT-HEM)  
DRO = Diesel Range Organics, GRO = Gas Range Organics, ORO = Oil Range Organics  
TVH = Total Volatile Hydrocarbons (C6-C10 EPA 8015, EPA 5030/5035 purge and trap)  
TEH = Total Extractable Hydrocarbons (Diesel #2 C11-C28, EPA Method 8015 solvent extraction)  
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes (EPA 8015, EPA 5030/5035 purge and trap)  
VOC = Volatile Organic Compounds (EPA 8260B, EPA 5030/5035 purge and trap)  
Soils always run as received but reported on a dry weight basis (mg/kg-dry-wt)  
Saturated Paste methods: Gavlak et al. "Soil, Plant, and Water reference methods for the western region"  
U = Compound analyzed but not detected, NA = Not Applicable or Not Analyzed

  
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May 21, 2019

Red Hawk Petroleum  
1250 Wood Branch Park Drive Ste 400  
Houston, TX 77079

Laboratory No.: E19136-3F      Project: Crumley  
Sample: #6      Location: Staudinger 1-31H

## Analyses performed according to methods in notes below

	Results	Units	Surr Rec. (%)	PQL (soil)
TRPH (ORO, Oil and Grease)	50	mg/kg – ppm	78.6	~167 ppm
TEH (DRO)	U	mg/kg - ppm	105.6	~3 ppm
TVH (GRO)	U	µg/kg - ppb	111.4	~500 ppb
Benzene	U	µg/kg - ppb	111.4	~5 ppb
Toluene	1.1	µg/kg - ppb	111.4	~5 ppb
Ethyl-benzene	U	µg/kg - ppb	111.4	~5 ppb
m,p-Xylene	U	µg/kg - ppb	111.4	~10 ppb
o-Xylene	U	µg/kg - ppb	111.4	~5 ppb
Sat. Paste pH	NA	SI	NA	
Sat. Paste EC	NA	mS/cm	NA	
Sat. Paste Saturation%	NA	%	NA	
Sat. Paste TDS	NA	mg/L	NA	
Sat. Paste SAR	NA	--	NA	

## Notes:

TRPH = Total Recoverable Petroleum Hydrocarbons (EPA 1664 or SM5520F Soxhlet extracted SGT-HEM)  
DRO = Diesel Range Organics, GRO = Gas Range Organics, ORO = Oil Range Organics  
TVH = Total Volatile Hydrocarbons (C6-C10 EPA 8015, EPA 5030/5035 purge and trap)  
TEH = Total Extractable Hydrocarbons (Diesel #2 C11-C28, EPA Method 8015 solvent extraction)  
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes (EPA 8015, EPA 5030/5035 purge and trap)  
VOC = Volatile Organic Compounds (EPA 8260B, EPA 5030/5035 purge and trap)  
Soils always run as received but reported on a dry weight basis (mg/kg-dry-wt)  
Saturated Paste methods: Gavlak et al. "Soil, Plant, and Water reference methods for the western region"  
U = Compound analyzed but not detected, NA = Not Applicable or Not Analyzed

  
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May 21, 2019

Red Hawk Petroleum  
1250 Wood Branch Park Drive Ste 400  
Houston, TX 77079

Laboratory No.: E19136-3G  
Sample: #7


Project: Crumley  
Location: Staudinger 1-31H

## Analyses performed according to methods in notes below

	Results	Units	Surr Rec. (%)	PQL (soil)
TRPH (ORO, Oil and Grease)	129	mg/kg – ppm	78.6	~167 ppm
TEH (DRO)	U	mg/kg - ppm	101.9	~3 ppm
TVH (GRO)	U	µg/kg - ppb	101.2	~500 ppb
Benzene	U	µg/kg - ppb	101.2	~5 ppb
Toluene	U	µg/kg - ppb	101.2	~5 ppb
Ethyl-benzene	U	µg/kg - ppb	101.2	~5 ppb
m,p-Xylene	U	µg/kg - ppb	101.2	~10 ppb
o-Xylene	U	µg/kg - ppb	101.2	~5 ppb
Sat. Paste pH	NA	SI	NA	
Sat. Paste EC	NA	mS/cm	NA	
Sat. Paste Saturation%	NA	%	NA	
Sat. Paste TDS	NA	mg/L	NA	
Sat. Paste SAR	NA	--	NA	

## Notes:

TRPH = Total Recoverable Petroleum Hydrocarbons (EPA 1664 or SM5520F Soxhlet extracted SGT-HEM)  
DRO = Diesel Range Organics, GRO = Gas Range Organics, ORO = Oil Range Organics  
TVH = Total Volatile Hydrocarbons (C6-C10 EPA 8015, EPA 5030/5035 purge and trap)  
TEH = Total Extractable Hydrocarbons (Diesel #2 C11-C28, EPA Method 8015 solvent extraction)  
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes (EPA 8015, EPA 5030/5035 purge and trap)  
VOC = Volatile Organic Compounds (EPA 8260B, EPA 5030/5035 purge and trap)  
Soils always run as received but reported on a dry weight basis (mg/kg-dry-wt)  
Saturated Paste methods: Gavlak et al. "Soil, Plant, and Water reference methods for the western region"  
U = Compound analyzed but not detected, NA = Not Applicable or Not Analyzed

  
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Project Manager

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Date