

State Water Resources Control Board

UST CASE CLOSURE REVIEW SUMMARY REPORT

Agency Information

Agency Name: Orange County Environmental Health Department (County)	Address: 1241 East Dyer Road, Suite 120 Santa Ana, CA 92705
Agency Caseworker: Kevin Lambert	Case No.: 04UT014

Case Information

USTCF Claim No.: 18140	Global ID: T0605905542
Site Name: Laguna Hills Car Wash	Site Address: 24795 Alicia Parkway, Laguna Hills, CA 92653
Responsible Party: Skider Group, Inc., Assignee	Address: 24795 Alicia Parkway, Laguna Hills, CA 92653
USTCF Expenditures to Date: \$11,162	Number of Years Case Open: 9

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605905542

Summary

The Low-Threat Underground Storage Tank (UST) Case Closure Policy (Policy) contains general and media-specific criteria, and cases that meet those criteria are appropriate for closure pursuant to the Policy. This case meets all of the required criteria of the Policy. A summary evaluation of compliance with the Policy is shown in **Attachment 1: Compliance with State Water Board**

...ing facility with three USTs containing gasoline. Soil and August 2007. No petroleum hydrocarbons were detected, methyl tertiary butyl ether (MTBE), which were detected in one below ground surface (bgs). In June 2012, an additional soil soil boring was drilled adjacent to boring B-1 to 55 feet bgs. No detected in the soil and groundwater samples. To date, no active at the Site.

the shallow soil only. According to data available in wells regulated by California Department of Public Health or feet of the Site. No other water supply wells have been site in files reviewed. Water is provided to water users near the guel Water Districts. The groundwater is not currently being , and it is highly unlikely that the groundwater will be used as a useable future.

assessment was conducted in July with the exception of low levels of soil boring (B-1) down to 30 feet b assessment was performed. One petroleum hydrocarbons were detected remediation has been conducted a

The petroleum release is limited to GeoTracker, there are no supply w surface water bodies within 1,000 identified within 1,000 feet of the S Site by the El Toro and Moulton N used as a source of drinking water source of drinking water in the fore

Other designated beneficial uses of groundwater are not threatened and it is highly unlikely that they will be, considering these factors in the context of the site setting. Remaining petroleum hydrocarbon constituents are limited, stable and concentrations decreasing. Corrective actions have been implemented and additional corrective actions are not necessary. Any remaining petroleum hydrocarbon constituents do not pose a significant risk to human health, safety or the environment.

Rationale for Closure under the Policy

- General Criteria – The case meets all eight Policy general criteria.
- Groundwater Specific Criteria – The case meets Policy Soil Only Case Exemption (Release has not affected groundwater). There are not sufficient mobile constituents (leachate, vapors, or light non-aqueous liquids [LNAPL]) to cause groundwater to exceed the groundwater criteria.
- Vapor Intrusion to Indoor Air – The case meets the Policy Exclusion for Active Station. Soil vapor evaluation is not required because the Site is an active commercial petroleum fueling facility.
- Direct Contact and Outdoor Air Exposure – The case meets Policy Criterion 3a. Maximum concentrations in soil are less than those in Policy Table 1 for Commercial/Industrial use and the concentration limits for a Utility Worker are not exceeded. There are no soil sample results in the case record for naphthalene. However, the relative concentration of naphthalene in soil can be conservatively estimated using the published relative concentrations of naphthalene and benzene in gasoline. Taken from Potter and Simmons (1998), gasoline mixtures contain approximately 2 percent benzene and 0.25 percent naphthalene. Therefore, benzene can be directly substituted for naphthalene concentrations with a safety factor of eight. Benzene concentrations from the Site are below the naphthalene thresholds in Policy Table 1. Therefore, the estimated naphthalene concentrations meet the thresholds in Table 1 and the Policy criteria for direct contact by a factor of eight. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold.

Objections to Closure and Responses

- The County does not object to UST case closure for this case (January 2013 phone conversation).

Determination

Based on the review performed in accordance with Health & Safety Code Section 25299.39.2 subdivision (a), the Fund Manager has determined that closure of the case is appropriate.

Recommendation for Closure

Based on available information, residual petroleum hydrocarbons at the Site do not pose a significant risk to human health, safety, or the environment, and the case meets the requirements of the Policy. Accordingly, the Fund Manager recommends that the case be closed. The State Water Board is conducting public notification as required by the Policy.



Lisa Babcock, P.G. 3939, C.E.G. 1235



Date

Prepared by: James Young

ATTACHMENT 1: COMPLIANCE WITH STATE WATER BOARD POLICIES AND STATE LAW

The case complies with the State Water Resources Control Board policies and state law. Section 25296.10 of the Health and Safety Code requires that sites be cleaned up to protect human health, safety, and the environment. Based on available information, any residual petroleum constituents at the site do not pose significant risk to human health, safety, or the environment.

The case complies with the requirements of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.¹

<p>Is corrective action consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations? The corrective action provisions contained in Chapter 6.7 of the Health and Safety Code and the implementing regulations govern the entire corrective action process at leaking UST sites. If it is determined, at any stage in the corrective action process, that UST site closure is appropriate, further compliance with corrective action requirements is not necessary. Corrective action at this site has been consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations and, since this case meets applicable case-closure requirements, further corrective action is not necessary, unless the activity is necessary for case closure.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Have waste discharge requirements or any other orders issued pursuant to Division 7 of the Water Code been issued at this case?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>If so, was the corrective action performed consistent with any order?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>
<p><u>General Criteria</u> General criteria that must be satisfied by all candidate sites:</p> <p>Is the unauthorized release located within the service area of a public water system?</p> <p>Does the unauthorized release consist only of petroleum?</p> <p>Has the unauthorized (“primary”) release from the UST system been stopped?</p> <p>Has free product been removed to the maximum extent practicable?</p> <p>Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>

¹ Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.
http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0016atta.pdf

<p>Has secondary source been removed to the extent practicable?</p> <p>Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15?</p> <p>Nuisance as defined by Water Code section 13050 does not exist at the site?</p> <p>Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p><u>Media-Specific Criteria</u> Candidate sites must satisfy all three of these media-specific criteria:</p> <p>1. Groundwater: To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites:</p> <p>Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?</p> <p>Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites?</p> <p>If YES, check applicable class: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p> <p>For sites with releases that have not affected groundwater, do mobile constituents (leachate, vapors, or light non-aqueous phase liquids) contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA</p>
<p>2. Petroleum Vapor Intrusion to Indoor Air: The site is considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies.</p> <p>Is the site an active commercial petroleum fueling facility? Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.</p> <p>a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of the applicable characteristics and criteria of scenario 4? If YES, check applicable scenarios: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>

<p>b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency?</p> <p>c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>
<p>3. Direct Contact and Outdoor Air Exposure: The site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c).</p> <p>a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs)?</p> <p>b. Are maximum concentrations of petroleum constituents in soil less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health?</p> <p>c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>

ATTACHMENT 2: SUMMARY OF BASIC CASE INFORMATION (Conceptual Site Model)

Site Location/History

- The Site is an active commercial petroleum fueling facility and a car wash on the northwestern corner of the intersection of Hon Avenue and Alicia Parkway, in Laguna Hills, California.
- Four soil borings were installed in 2007, and an additional soil assessment was performed in June 2012.
- Site map showing the locations of the USTs, soil borings and soil sampling is provided at the end of this closure review summary (Atlas, 2012).
- Nature of Contaminants of Concern: Petroleum hydrocarbons only.
- Source: UST system.
- Date reported: March 2004.
- Status of Release: Product lines upgraded.
- Free Product: None reported.

Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/Removed/Active	Date
1	10,000	Gasoline	Active	-
2	10,000	Gasoline	Active	-
3	10,000	Gasoline	Active	-

Receptors

- GW Basin: San Juan Watershed-Laguna-Aliso.
- Beneficial Uses: Agriculture supply (Santa Ana Regional Water Quality Control Board [Regional Water Board]) Basin Plan).
- Land Use Designation: Commercial.
- Public Water System: El Toro and Moulton Niguel Water Districts.
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are no public supply wells regulated by the California Department of Public Health within 1,000 feet of the Site. No other water supply wells were identified within 1,000 feet of the Site in the files reviewed.
- Distance to Nearest Surface Water: There is no identified surface water within 1,000 feet of the Site.

Geology/Hydrogeology

- Stratigraphy: The Site is underlain by fine-grained sand to 10 feet below ground surface (bgs), followed by hard silt to 30 feet bgs, followed by very fine and dense sand to 35 feet bgs, where the sand becomes wet, and followed by the very fine and dense sand to 55 feet bgs (Atlas 2012).
- Maximum Sample Depth: 55 feet bgs.
- Minimum Groundwater Depth: Not available.
- Maximum Groundwater Depth: Not available.
- Current Average Depth to Groundwater: Approximately 35 feet bgs based on the latest single soil boring assessment conducted on June 25, 2012.
- Saturated Zones(s) Studied: Approximately 35 to 55 feet bgs.
- Appropriate Screen Interval: Not applicable.
- Groundwater Flow Direction: Not available.

Monitoring Well Information

Well Designation	Date Installed	Screen Interval (feet bgs)	Depth to Water (feet bgs)
Not Applicable	Not Applicable	Not Applicable	Not Applicable

Remedial Summary

- Free Product: None reported in GeoTracker.
- Soil Excavation: None reported.
- In-Situ Soil Remediation: None reported.
- Groundwater Remediation: None reported.

Most Recent Concentrations of Petroleum Constituents in Soil

Constituent	Maximum 0-5 feet bgs [mg/kg and (date)]	Maximum 5-10 feet bgs [mg/kg and (date)]
Benzene	0.021 (8/26/03)	<0.001 (6/25/12)
Ethylbenzene	1.8 (8/26/03)	<0.001 (6/25/12)
Naphthalene	NA	NA
PAHs	NA	NA

NA: Not Analyzed, Not Applicable or Data Not Available

mg/kg: milligrams per kilogram, parts per million

<: Not detected at or above stated reporting limit

PAHs: Polycyclic aromatic hydrocarbons

Most Recent Concentrations of Petroleum Constituents in Groundwater

Sample	Sample Date	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)
C-1	6/25/2012	<0.2	<0.05	<0.05	<0.05	<1	<1	<10
WQOs	-	--	1	150	300	1,750	5^a	1,200^b

µg/L: micrograms per liter, parts per billion

<: Not detected at or above stated reporting limit

TPHg: Total petroleum hydrocarbons as gasoline

MTBE: Methyl tert-butyl ether

TBA: Tert-butyl alcohol

WQOs: Water Quality Objectives, Regional Water Board Basin Plan.

--: Regional Water Board Basin Plan does not have a numerical water quality objective for TPHg.

^a: Secondary maximum contaminant level (MCL).

^b: California Department of Public Health, Response Level.

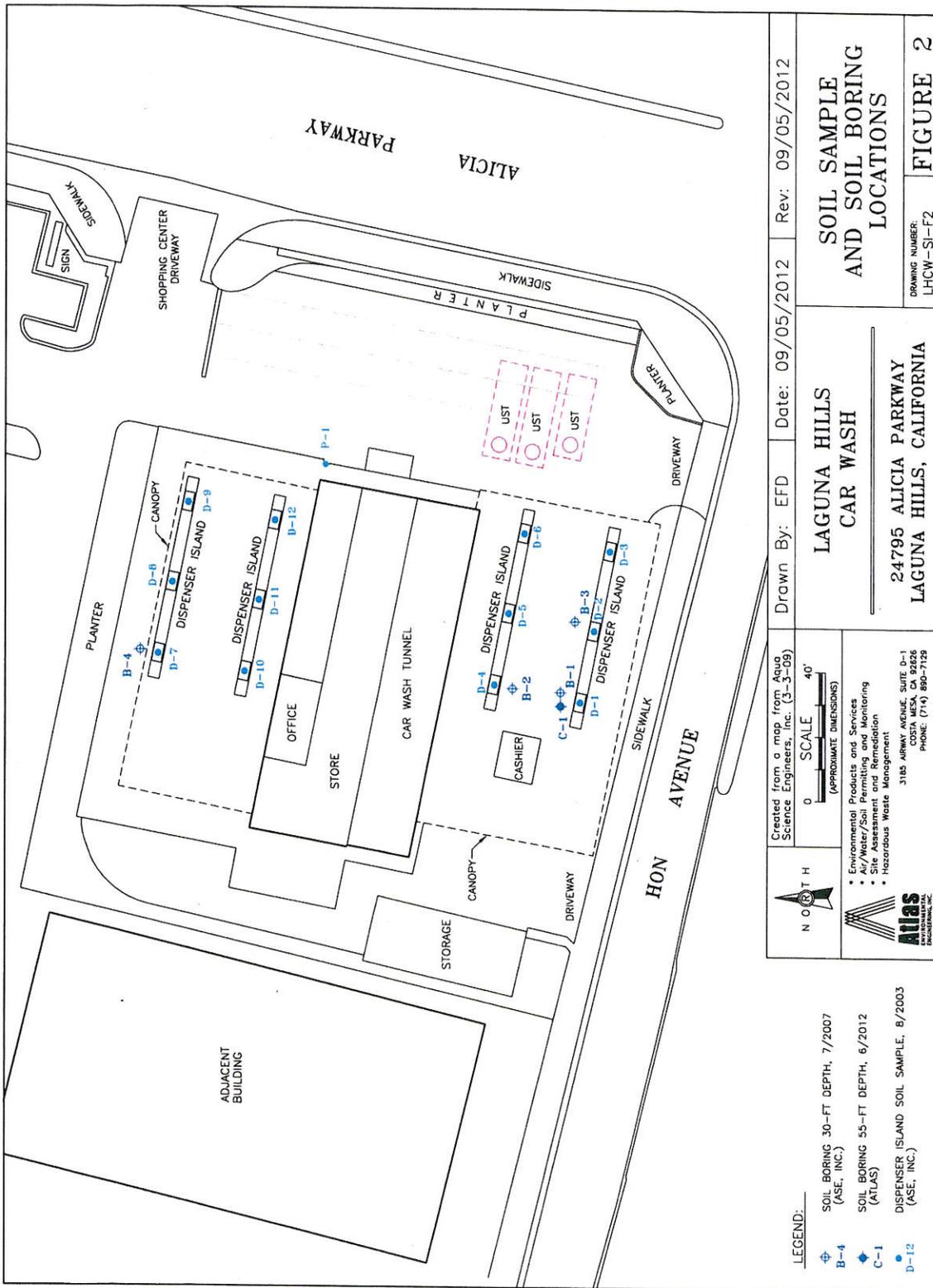
Groundwater Trends

Groundwater is not impacted at the Site.

Evaluation of Current Risk

- Estimate of Hydrocarbon Mass in Soil: None reported.
- Soil/Groundwater tested for methyl tert-butyl ether (MTBE): Yes, see table above.
- Oxygen Concentrations in Soil Vapor: None reported.
- Plume Length: Groundwater is not impacted at the Site.
- Plume Stable or Degrading: Not applicable.
- Contaminated Zone(s) Used for Drinking Water: No.

- Groundwater Risk from Residual Petroleum Hydrocarbons: The case meets Policy Soil Only Case Exemption (Release has not affected groundwater). There are not sufficient mobile constituents (leachate, vapors, or light non-aqueous liquids [LNAPL]) to cause groundwater to exceed the groundwater criteria.
- Indoor Vapor Risk from Residual Petroleum Hydrocarbons: The case meets the Policy Exclusion for Active Station. Soil vapor evaluation is not required because the site is an active commercial petroleum fueling facility.
- Direct Contact Risk from Residual Petroleum Hydrocarbons: The case meets Policy Criterion 3a. Maximum concentrations in soil are less than those in Policy Table 1 for Commercial/Industrial use and the concentration limits for a Utility Worker are not exceeded. There are no soil sample results in the case record for naphthalene. However, the relative concentration of naphthalene in soil can be conservatively estimated using the published relative concentrations of naphthalene and benzene in gasoline. Taken from Potter and Simmons (1998), gasoline mixtures contain approximately 2 percent benzene and 0.25 percent naphthalene. Therefore, benzene can be directly substituted for naphthalene concentrations with a safety factor of eight. Benzene concentrations from the Site are below the naphthalene thresholds in Policy Table 1. Therefore, the estimated naphthalene concentrations meet the thresholds in Table 1 and the Policy criteria for direct contact by a factor of eight. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold.



<p>LEGEND:</p> <ul style="list-style-type: none"> ⊕ SOIL BORING 30-FT DEPTH, 7/2007 (ASE, INC.) ⊕ SOIL BORING 55-FT DEPTH, 6/2012 (ATLAS) ⊕ DISPENSER ISLAND SOIL SAMPLE, 8/2003 (ASE, INC.) 	<p>Created from a map from Aqua Science Engineers, Inc. (3-3-09)</p> <p>SCALE 40' (APPROXIMATE DIMENSIONS)</p>	<p>Drawn By: EFD Date: 09/05/2012 Rev: 09/05/2012</p>	<p>LAGUNA HILLS CAR WASH</p> <p>24795 ALICIA PARKWAY LAGUNA HILLS, CALIFORNIA</p>	<p>SOIL SAMPLE AND SOIL BORING LOCATIONS</p>
	<p> <ul style="list-style-type: none"> • Environmental Products and Services • Air Quality Monitoring • Site Assessment and Remediation • Hazardous Waste Management <p>ATLAS ENVIRONMENTAL ENGINEERS, INC.</p> <p>3185 ARWAY AVENUE, SUITE D-1 COSTA MESA, CA 92626 PHONE: (714) 890-7129</p> </p>	<p>DRAWING NUMBER: LHCW-SI-F2</p>	<p>FIGURE 2</p>	

