Model.Core.Property

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Stability	Portability :
Safe Haskell	Safe
Language	Haskell2010

Documentation

newtype **CasNumber** #

Remediation of properties contaminated with oil.

The process of remediation of contaminated properties has quite a few steps and does provide an investment opportunity to investors with an appetite for risk. However, the transaction fees adds up and the risk can be offset if most of the cash transactions are managed on a Tezos.

Pre-investment tasks

During this phase, the group short lists a set of properties that meet a particular risk profile.

Research phase

During this phase all the relevant environment reports need to be collected for investors to vote on the project. This phase also includes a phase to send invites to an investor to solicit interest in the project. Initially, this can be a simple mailing list and a voting phase with the quorum of investors needed for the property.

Offer phase

During this phase, an offer is made to the seller that usually includes an option to purchase the property at a price before an agreed upon date. The option has a premium as well as a list of tasks the option holder agrees to perform, which in this case involves cleaning up the property during before the option expires. Obviously, the profitability of the deal is influenced by a number of factors and this document will outline some of the parameters that need to be managed during the active phase of a project.

Pre-cleanup phase

Option agreement also has a liability clause that governs the participation of a licensed contractor so that the property is covered.

Permitting and approvals

Before a property project can commence, the county needs to approve of the cleanup plan with some scheduling requirements.

Cleanup process

This is when the cleanup commences. As part of the cleanup the tanks are removed if any along with their certificate of removal with timestamps so that they can be traced at any time by any regulatory authority.

Closure process

Depending on the choice of available technologies, such as https://shop.sarvabioremed.com/collections/vaporremed, the timeline for cleanup may vary. However, the final cleanup requires that a contamination report in soil and associated groundwater report to ensure that the property is clean.

DEP's NFA report

If all goes well, the DEP issues an NFA report on the property.

Option Exercise process

A vote is setup to seek approval to exercise the option if the date of cleanup is within the option's expiration date. For the vote to be meaningful this process needs to present the investors with a potential price on the property as a result of the cleanup. The request to vote needs to be accompanied with the potential price so that the investor group can arrive at a consensus price.

Settlement

Obviously this is what the group is waiting for and this can take months as the remediation projects usually have multiple phases,as we mention earlier, these projects present high risk to an individual investor, though can present some opportunity when the risk is shared among multiple investors.

Escrow account

Settlement amount is transfered to an escrow account that holds the settlement amout for a settlement time (default to 24 hours). Distribution is executed using generally accepted distribution practices.

Constructors

CasNumber

_elements :: [Int]

Instances

Show CasNumber | #

---

newtype **TezosAddress** | #

Constructors

TezosAddress

_add :: Text

Instances

Show TezosAddress | #

---

data **ContaminationUOM** | #

Contamination of a compound is measured in ratio and this is conventional depending on the nature of the contaminant. Here we are representing the contamination by the most commonly used measures in most reports, though the units can be better expressed as more contaminants are monitored.

Constructors

PartsPerMillion

PartsPerBillion

Instances

Show ContaminationUOM | #

---

data **Contamination** | #

The amount of _cas in terms of the ContaminationUOM. For example, 200 PartsPerBillion of _Tetrachloroethene (PCE)_. The final report needed to obtain an NFA on a property will have 2 parameters, the actual contamination measured and the allowed limit of the contamination. Obviously, the measured value needs to be less than the allowed limit to obtain closure.

Constructors

Contamination

_cas :: CasNumber

_amount :: Integer

_unitOfMeasure :: ContaminationUOM

Instances

Show Contamination | #

---

data **Detail** | #

Constructors

Detail

chemicalName :: Text

casNumber :: CasNumber

contamination :: Contamination

Instances

Show Detail | #

---

data **Summary** | #

The contamination summary report for the property.

Constructors

Summary

_summary :: Text

_details :: Text

Instances

Show Summary | #

---

data **State** | #

The state the property is listed in, should be one of the 51 states in the country. This version supports US states, though we can support variety of countries that need this application.

Constructors

State

stateCode :: Text

stateDescription :: Text

Instances

Show State | #

---

data **Property**

Constructors #

Property

_name :: Text

_address :: Text

_state :: State

Instances

Show Property #

---

data **ReportIdentifier** #

Constructors

ReportIdentifier

_id :: Text

Instances

Show ReportIdentifier #

---

data **ReportType** #

Constructors

RemedialInvestigation

RiskAssessment

Cleanup

Instances

Show ReportType #

---

data **Report** #

Constructors

Report

preparedDate :: UTCTime	Date on which the report was prepared.
reportType :: ReportType	The type of report.
reportDetails :: Set Detail	Detail outlines additional detail based on the phase of the | contaminated property.
reportSummary :: Set Summary	A high level summary of the report.
caseNumber :: ReportIdentifier	
preparer :: CaseManager	

Instances

Show Report | #

---

data **CaseManager** | #

The case manager responsible for this property.

Constructors

CaseManager

_cmName :: Text

_contact :: TezosAddress

_phone :: Text

_email :: Text

Instances

Show CaseManager | #

---

data **RealEstateOption** | #

Constructors

RealEstateOption

property :: Property

premium :: Tezzies

expiration :: UTCTime

exercisePrice :: Tezzies

Instances

Show RealEstateOption | #

---

data **Contractor** | #

Constructors

Contractor

_contractorName :: Text

_contractorAddress :: Text

_licenseRenewedOn :: UTCTime

_licenseExpiresOn :: UTCTime

Instances

Show Contractor | #

```
data Tezzies                                                    #
```

The tezzies expressed in terms of an ***amount*** and an ***exponent*** that following general rules of currency computation and presentation.

Constructors

Tezzies

_tAmount :: Integer

_exponent :: Integer

Instances

```
Show Tezzies #
```