

# Ecological Data Exchange Specification (working title)

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**Status: Draft** - while the document is in draft, sections of the document may contain placeholders such as **TBA** and **TBD**.

## 1. Metadata

**IRI** <https://linked.data.gov.au/def/rlp/spec> (TBC)

**Title** Ecological Data Exchange Specification (working title)

<b>Definition</b>	This document lists the normative requirements for data aiming to conform to the TERN Ecosystem Surveillance Ecological Monitoring Protocols. It is to be used as the authoritative, human-readable list of individual requirements from which profile artefacts such as validators are derived from.
<b>Created</b>	2022-03-14
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<b>License</b>	<a href="#">Creative Commons Attribution 4.0 International (CC BY 4.0)</a>
<b>Further information</b>	<p>This document is part of the Services Agreement for the provision of standardised ecological monitoring protocols and systems for data collection, storage and management.</p> <p>Procurement Number (PRN): 360 000 5101</p> <p>Commonwealth of Australia as represented by the Department of Agriculture, Water and the Environment ABN 34 190 894 983 (<b>Department</b>)</p> <p>The University of Queensland as represented by TERN ABN 63 942 912 684 (<b>Service Provider</b>)</p>
<b>Alternate document formats</b>	<a href="#">PDF</a>

## 2. Preamble

### 2.1. Abstract

TERN Ecosystem Surveillance have developed 19 modules to standardise ecological monitoring protocols for data collection. The working title for the monitoring protocols is *TERN Ecosystem Surveillance Ecological Monitoring Protocols*.

TERN Data Services and Analytics is developing a standardised data exchange specification to support the exchange of data collected using TERN Ecosystem Surveillance Ecological Monitoring Protocols. The working title for the data exchange specification is *Ecological Data Exchange Specification*.

The Ecological Data Exchange Specification is a profile of the ecological data model known as the [TERN Ontology](#). Data that is conformant to the Ecological Data Exchange Specification is also conformant to the TERN Ontology.

## 2.2. Normative Status

This specification is normative for the exchange of data collected using TERN Ecosystem Surveillance Ecological Monitoring Protocols.

## 2.3. Standard Parts

This specification document is one of many resources that together form the Ecological Data Exchange Specification Profile.

Other parts of this standard include:

TBA.

## 2.4. Namespaces

Prefix	Namespace Name	Description
reg:	<a href="http://purl.org/linked-data/registry#">http://purl.org/linked-data/registry#</a>	Registry Ontology
sosa:	<a href="http://www.w3.org/ns/sosa/">http://www.w3.org/ns/sosa/</a>	SOSA
tern:	<a href="https://www.3id.org/tern/ontologies/tern/">https://www.3id.org/tern/ontologies/tern/</a>	TERN Ontology
unit:	<a href="http://qudt.org/vocab/unit/">http://qudt.org/vocab/unit/</a>	QUDT Units vocabulary

## 3. Requirements

### 3.1. Domain Model Conformance

Requirements define the rules and constraints which data must conform to in order to be valid.

A *status* is assigned to each requirement. The *status* code list used in this document is defined by the [Registry ontology](#) and a subset of the status codes are redefined here:

- **submitted** - A proposed entry which is not yet approved for use for use. Corresponds to ISO 19135:(redraft) 'submitted'.

- **invalid** - An entry which has been invalidated due to serious flaws, distinct from retirement. Corresponds to ISO 19135(redraft) 'invalid'.
- **stable** - An entry that is seen as having a reasonable measure of stability, may be used to mark the full adoption of a previously 'experimental' entry.

### 3.1.1. Plot Description Module Conformance Class Requirements

Requirements that have been accepted and are **stable** are marked with a green check mark.

For example:

Property	Value
Status	<b>stable</b> ✓

#### 3.1.1.1. Cover class Observation

##### 3.1.1.1.1. Feature type

Property	Value
Identifier	<b>urn:shapes:plot-description:cover-class:feature-type</b>
Label	Feature type
Definition	Instances of <b>tern:Observation</b> with <b>sosa:observedProperty</b> value <b>TBA</b> <i>MUST</i> have a <b>tern:featureType</b> with the value <b>vegetation</b> .
Comment	TERN's ecologists have determined the feature type is <i>vegetation</i> , defined by the <a href="#">Australian Soil and Land Survey Field Handbook</a> .
Status	<b>submitted</b> ○
Conformance Classes	<b>TBA</b>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<b>/shapes/plot-description/cover-class/shapes.ttl</b>
Examples	Valid: <b>/shapes/plot-description/cover-class/valid.ttl</b>  Invalid: <b>/shapes/plot-description/cover-class/invalid.ttl</b>

##### 3.1.1.1.2. Result value

Property	Value
Identifier	<b>urn:shapes:plot-description:cover-class:result-value</b>
Label	Result value
Definition	The value of <b>rdf:value</b> <i>MUST</i> exist in the Cover class codes controlled vocabulary.
Comment	The value in <b>sosa:hasResult</b> <i>MUST</i> be a value in <b>sh:in</b> , which is the Cover class codes controlled vocabulary.

Property	Value
Status	submitted ○
Conformance Classes	TBA
Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <p>c</p> <p>d</p> <p>d</p> <p>d</p> <p>d</p> <p>d</p>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/cover-class/shapes.ttl
Examples	Valid: /shapes/plot-description/cover-class/valid.ttl  Invalid: /shapes/plot-description/cover-class/invalid.ttl

#### 3.1.1.1.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:cover-class:simple-result
Label	Simple result
Definition	Instances of <b>tern:Observation</b> <i>MUST</i> have a <b>sosa:hasSimpleResult</b> where the value is the same as the <b>rdf:value</b> on the value node of <b>sosa:hasResult</b> .
Comment	Value of <b>sosa:hasSimpleResult</b> <i>MUST</i> be the same as the value in <b>sosa:hasResult</b> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/cover-class/shapes.ttl
Examples	Valid: /shapes/plot-description/cover-class/valid.ttl  Invalid: /shapes/plot-description/cover-class/invalid.ttl

#### 3.1.1.1.4. Site visit

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class:site-visit</code>
Label	Site visit
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value <i>TBA</i> <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/cover-class/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/cover-class/valid.ttl</code>  Invalid: <code>/shapes/plot-description/cover-class/invalid.ttl</code>

#### 3.1.1.1.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class:used-procedure</code>
Label	Used procedure
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value <i>TBA</i> <i>MUST</i> have a <code>sosa:usedProcedure</code> where the value is <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .
Comment	IRI of procedure <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/cover-class/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/cover-class/valid.ttl</code>  Invalid: <code>/shapes/plot-description/cover-class/invalid.ttl</code>

### 3.1.1.1.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class:value-type</code>
Label	Value type
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value <i>TBA</i> <i>MUST</i> have a <code>sosa:hasResult</code> where the value node is an instance of <code>tern:IRI</code> .
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a <code>tern:IRI</code> .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/cover-class/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/cover-class/valid.ttl</code>  Invalid: <code>/shapes/plot-description/cover-class/invalid.ttl</code>

### 3.1.1.1.7. Vocabulary

Property	Value
Identifier	<code>urn:shapes:plot-description:cover-class:vocabulary</code>
Label	Vocabulary
Definition	The value of <code>tern:vocabulary</code> <i>MUST</i> match the pattern <code>6aaa330c-3d60-419b-a29b-a2dbc6d67928\$</code> .
Comment	IRI of <code>tern:vocabulary</code> in <code>sosa:hasResult</code> <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/6aaa330c-3d60-419b-a29b-a2dbc6d67928">https://linked.data.gov.au/def/test/dawe-cv/6aaa330c-3d60-419b-a29b-a2dbc6d67928</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/6aaa330c-3d60-419b-a29b-a2dbc6d67928">https://linked.data.gov.au/def/test/dawe-cv/6aaa330c-3d60-419b-a29b-a2dbc6d67928</a> is the IRI for "Cover class codes".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/cover-class/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/cover-class/valid.ttl</code>  Invalid: <code>/shapes/plot-description/cover-class/invalid.ttl</code>

### 3.1.1.2. Landform pattern Observation

#### 3.1.1.2.1. Feature type

Property	Value
Identifier	<code>urn:shapes:plot-description:landform-pattern:feature-type</code>
Label	Feature type
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value <i>TBA</i> <i>MUST</i> have a <code>tern:featureType</code> with the value <i>landform</i> .
Comment	TERN's ecologists have determined the feature type is <i>landform</i> , defined by the <a href="#">Australian Soil and Land Survey Field Handbook</a> .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/landform-pattern/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/landform-pattern/valid.ttl</code>  Invalid: <code>/shapes/plot-description/landform-pattern/invalid.ttl</code>

#### 3.1.1.2.2. Result value


Property	Value
Identifier	<code>urn:shapes:plot-description:landform-pattern:result-value</code>
Label	Result value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the landform pattern codes controlled vocabulary.
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a value in <code>sh:in</code> , which is the landform pattern codes controlled vocabulary.
Status	submitted ○
Conformance Classes	<i>TBA</i>
Property	Value




Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <ul style="list-style-type: none"> <li>Aluvial fan</li> <li>Aluvial plain</li> <li>Anastomotic plain</li> <li>Badlands</li> <li>Bar Plain</li> <li>Beach ridge plain</li> <li>Caldera</li> <li>Chenier plain</li> <li>Coral reef</li> <li>Covered plain</li> <li>Delta</li> <li>Dunefield</li> <li>Escarpment</li> <li>Floodplain</li> <li>Hills</li> <li>Karst</li> <li>Laclustrine plain</li> <li>Lava plain</li> <li>Longitudinal dunefield</li> <li>Low hills</li> <li>Made land</li> <li>Marine plain</li> <li>Meander plain</li> </ul>

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-pattern/shapes.ttl">/shapes/plot-description/landform-pattern/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/landform-pattern/valid.ttl">/shapes/plot-description/landform-pattern/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-pattern/invalid.ttl">/shapes/plot-description/landform-pattern/invalid.ttl</a>

#### 3.1.1.2.3. Simple result

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:landform-pattern:simple-result</a>
Label	Simple result
Definition	Instances of <a href="#">tern:Observation</a> <i>MUST</i> have a <a href="#">sosa:hasSimpleResult</a> where the value is the same as the <a href="#">rdf:value</a> on the value node of <a href="#">sosa:hasResult</a> .
Comment	Value of <a href="#">sosa:hasSimpleResult</a> <i>MUST</i> be the same as the value in <a href="#">sosa:hasResult</a> .
Status	<a href="#">submitted</a> 
Conformance Classes	<a href="#">TBA</a>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-pattern/shapes.ttl">/shapes/plot-description/landform-pattern/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/landform-pattern/valid.ttl">/shapes/plot-description/landform-pattern/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-pattern/invalid.ttl">/shapes/plot-description/landform-pattern/invalid.ttl</a>

#### 3.1.1.2.4. Site visit

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:landform-pattern:site-visit</a>
Label	Site visit
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value <a href="#">TBA</a> <i>MUST</i> have a value for <a href="#">tern:hasSiteVisit</a> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	<a href="#">submitted</a> 
Conformance Classes	<a href="#">TBA</a>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-pattern/shapes.ttl">/shapes/plot-description/landform-pattern/shapes.ttl</a>

Property	Value
Examples	Valid: <a href="/shapes/plot-description/landform-pattern/valid.ttl">/shapes/plot-description/landform-pattern/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-pattern/invalid.ttl">/shapes/plot-description/landform-pattern/invalid.ttl</a>

#### 3.1.1.2.5. Used procedure

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:landform-pattern:used-procedure</a>
Label	Used procedure
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value <i>TBA</i> <i>MUST</i> have a <a href="#">sosa:usedProcedure</a> where the value is <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .
Comment	IRI of procedure <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-pattern/shapes.ttl">/shapes/plot-description/landform-pattern/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/landform-pattern/valid.ttl">/shapes/plot-description/landform-pattern/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-pattern/invalid.ttl">/shapes/plot-description/landform-pattern/invalid.ttl</a>

#### 3.1.1.2.6. Value type

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:landform-pattern:value-type</a>
Label	Value type
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value <i>TBA</i> <i>MUST</i> have a <a href="#">sosa:hasResult</a> where the value node is an instance of <a href="#">tern:IRI</a> .
Comment	The value in <a href="#">sosa:hasResult</a> <i>MUST</i> be a <a href="#">tern:IRI</a> .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-pattern/shapes.ttl">/shapes/plot-description/landform-pattern/shapes.ttl</a>

Property	Value
Examples	Valid: <a href="/shapes/plot-description/landform-pattern/valid.ttl">/shapes/plot-description/landform-pattern/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-pattern/invalid.ttl">/shapes/plot-description/landform-pattern/invalid.ttl</a>

### 3.1.1.2.7. Vocabulary

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:landform-pattern:vocabulary</a>
Label	Vocabulary
Definition	The value of <a href="#">tern:vocabulary</a> <i>MUST</i> match the pattern <a href="#">19d91a7a-2733-4b84-9d2b-4bda4808c003\$</a> .
Comment	IRI of <a href="#">tern:vocabulary</a> in <a href="#">sosa:hasResult</a> <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/19d91a7a-2733-4b84-9d2b-4bda4808c003">https://linked.data.gov.au/def/test/dawe-cv/19d91a7a-2733-4b84-9d2b-4bda4808c003</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/19d91a7a-2733-4b84-9d2b-4bda4808c003">https://linked.data.gov.au/def/test/dawe-cv/19d91a7a-2733-4b84-9d2b-4bda4808c003</a> is the IRI for "Plot slope codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-pattern/shapes.ttl">/shapes/plot-description/landform-pattern/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/landform-pattern/valid.ttl">/shapes/plot-description/landform-pattern/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-pattern/invalid.ttl">/shapes/plot-description/landform-pattern/invalid.ttl</a>


### 3.1.1.3. Surface strew size Observation

#### 3.1.1.3.1. Feature type

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:surface-strew-size:feature-type</a>
Label	Feature type
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value TBA <i>MUST</i> have a <a href="#">tern:featureType</a> with the value <a href="#">land surface</a> .
Comment	TERN's ecologists have determined the feature type is <i>land surface</i> , defined by the <a href="#">Australian Soil and Land Survey Field Handbook</a> .
Status	submitted ○
Conformance Classes	TBA

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-size/shapes.ttl">/shapes/plot-description/surface-strew-size/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-size/valid.ttl">/shapes/plot-description/surface-strew-size/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-size/invalid.ttl">/shapes/plot-description/surface-strew-size/invalid.ttl</a>

### 3.1.1.3.2. Result value

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:surface-strew-size:result-value</a>
Label	Result value
Definition	The value of <a href="#">rdf:value</a> <i>MUST</i> exist in the Soil surface strew size codes controlled vocabulary.
Comment	The value in <a href="#">sosa:hasResult</a> <i>MUST</i> be a value in <a href="#">sh:in</a> , which is the Soil surface strew size codes controlled vocabulary.
Status	<a href="#">submitted</a> 
Conformance Classes	<a href="#">TBA</a>
Property	Value
Controlled list items	The result value <i>MUST</i> be from the following list:  <a href="#">Boulder (250mm +)</a>  <a href="#">Cobble (51-250mm)</a>  <a href="#">Not Collected</a>  <a href="#">Pebble (5-50mm)</a>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-size/shapes.ttl">/shapes/plot-description/surface-strew-size/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-size/valid.ttl">/shapes/plot-description/surface-strew-size/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-size/invalid.ttl">/shapes/plot-description/surface-strew-size/invalid.ttl</a>

### 3.1.1.3.3. Simple result

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:surface-strew-size:simple-result</a>
Label	Simple result

Property	Value
Definition	Instances of <code>tern:Observation</code> <i>MUST</i> have a <code>sosa:hasSimpleResult</code> where the value is the same as the <code>rdf:value</code> on the value node of <code>sosa:hasResult</code> .
Comment	Value of <code>sosa:hasSimpleResult</code> <i>MUST</i> be the same as the value in <code>sosa:hasResult</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-size/shapes.ttl">/shapes/plot-description/surface-strew-size/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-size/valid.ttl">/shapes/plot-description/surface-strew-size/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-size/invalid.ttl">/shapes/plot-description/surface-strew-size/invalid.ttl</a>

#### 3.1.1.3.4. Site visit

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-size:site-visit</code>
Label	Site visit
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value TBA <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-size/shapes.ttl">/shapes/plot-description/surface-strew-size/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-size/valid.ttl">/shapes/plot-description/surface-strew-size/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-size/invalid.ttl">/shapes/plot-description/surface-strew-size/invalid.ttl</a>

#### 3.1.1.3.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-size:used-procedure</code>
Label	Used procedure
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value TBA <i>MUST</i> have a <code>sosa:usedProcedure</code> where the value is <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .

Property	Value
Comment	IRI of procedure <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-size/shapes.ttl">/shapes/plot-description/surface-strew-size/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-size/valid.ttl">/shapes/plot-description/surface-strew-size/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-size/invalid.ttl">/shapes/plot-description/surface-strew-size/invalid.ttl</a>

### 3.1.1.3.6. Value type

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:surface-strew-size:value-type</a>
Label	Value type
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value TBA <i>MUST</i> have a <a href="#">sosa:hasResult</a> where the value node is an instance of <a href="#">tern:IRI</a> .
Comment	The value in <a href="#">sosa:hasResult</a> <i>MUST</i> be a <a href="#">tern:IRI</a> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-size/shapes.ttl">/shapes/plot-description/surface-strew-size/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-size/valid.ttl">/shapes/plot-description/surface-strew-size/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-size/invalid.ttl">/shapes/plot-description/surface-strew-size/invalid.ttl</a>

### 3.1.1.3.7. Vocabulary

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:surface-strew-size:vocabulary</a>
Label	Vocabulary
Definition	The value of <a href="#">tern:vocabulary</a> <i>MUST</i> match the pattern <a href="#">3b25ce0f-9eb7-4d2d-97ce-143858cfd4d4\$</a> .

Property	Value
Comment	IRI of <b>tern:vocabulary</b> in <b>sosa:hasResult</b> <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/3b25ce0f-9eb7-4d2d-97ce-143858cfd4d4">https://linked.data.gov.au/def/test/dawe-cv/3b25ce0f-9eb7-4d2d-97ce-143858cfd4d4</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/3b25ce0f-9eb7-4d2d-97ce-143858cfd4d4">https://linked.data.gov.au/def/test/dawe-cv/3b25ce0f-9eb7-4d2d-97ce-143858cfd4d4</a> is the IRI for "Soil surface strew size codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-size/shapes.ttl">/shapes/plot-description/surface-strew-size/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-size/valid.ttl">/shapes/plot-description/surface-strew-size/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-size/invalid.ttl">/shapes/plot-description/surface-strew-size/invalid.ttl</a>

### 3.1.1.4. Landform element Observation

#### 3.1.1.4.1. Feature type

Property	Value
Identifier	<b>urn:shapes:plot-description:landform-element:feature-type</b>
Label	Feature type
Definition	Instances of <b>tern:Observation</b> with <b>sosa:observedProperty</b> value <b>TBA</b> <i>MUST</i> have a <b>tern:featureType</b> with the value <b>landform</b> .
Comment	TERN's ecologists have determined the feature type is <i>landform</i> , defined by the <a href="#">Australian Soil and Land Survey Field Handbook</a> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-element/shapes.ttl">/shapes/plot-description/landform-element/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/landform-element/valid.ttl">/shapes/plot-description/landform-element/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-element/invalid.ttl">/shapes/plot-description/landform-element/invalid.ttl</a>

#### 3.1.1.4.2. Result value

Property	Value
Identifier	<b>urn:shapes:plot-description:landform-element:result-value</b>
Label	Result value




Property	Value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the landform element codes controlled vocabulary.
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a value in <code>sh:in</code> , which is the landform element codes controlled vocabulary.
Status	submitted ○
Conformance Classes	TBA
Property	Value


Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <ul style="list-style-type: none"> <li>Alcove</li> <li>Backplain</li> <li>Bank (stream bank)</li> <li>Bar (stream bar)</li> <li>Barchan dune</li> <li>Beach</li> <li>Beach ridge</li> <li>Bench</li> <li>Berm</li> <li>Blow-out</li> <li>Breakaway</li> <li>Channel bench</li> <li>Cirque</li> <li>Clay plain</li> <li>Cliff</li> <li>Cliff-footslope</li> <li>Closed depression</li> <li>Collapse doline</li> <li>Cone (volcanic)</li> <li>Crater</li> <li>Cut face</li> <li>Cut-over surface</li> <li>Dam</li> </ul>

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-element/shapes.ttl">/shapes/plot-description/landform-element/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/landform-element/valid.ttl">/shapes/plot-description/landform-element/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-element/invalid.ttl">/shapes/plot-description/landform-element/invalid.ttl</a>

#### 3.1.1.4.3. Simple result

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:landform-element:simple-result</a>
Label	Simple result
Definition	Instances of <a href="#">tern:Observation</a> <i>MUST</i> have a <a href="#">sosa:hasSimpleResult</a> where the value is the same as the <a href="#">rdf:value</a> on the value node of <a href="#">sosa:hasResult</a> .
Comment	Value of <a href="#">sosa:hasSimpleResult</a> <i>MUST</i> be the same as the value in <a href="#">sosa:hasResult</a> .
Status	<a href="#">submitted</a> 
Conformance Classes	<a href="#">TBA</a>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-element/shapes.ttl">/shapes/plot-description/landform-element/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/landform-element/valid.ttl">/shapes/plot-description/landform-element/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-element/invalid.ttl">/shapes/plot-description/landform-element/invalid.ttl</a>

#### 3.1.1.4.4. Site visit

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:landform-element:site-visit</a>
Label	Site visit
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value <a href="#">TBA</a> <i>MUST</i> have a value for <a href="#">tern:hasSiteVisit</a> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	<a href="#">submitted</a> 
Conformance Classes	<a href="#">TBA</a>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-element/shapes.ttl">/shapes/plot-description/landform-element/shapes.ttl</a>

Property	Value
Examples	Valid: <a href="/shapes/plot-description/landform-element/valid.ttl">/shapes/plot-description/landform-element/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-element/invalid.ttl">/shapes/plot-description/landform-element/invalid.ttl</a>

#### 3.1.1.4.5. Used procedure

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:landform-element:used-procedure</a>
Label	Used procedure
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value <i>TBA</i> <i>MUST</i> have a <a href="#">sosa:usedProcedure</a> where the value is <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .
Comment	IRI of procedure <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-element/shapes.ttl">/shapes/plot-description/landform-element/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/landform-element/valid.ttl">/shapes/plot-description/landform-element/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-element/invalid.ttl">/shapes/plot-description/landform-element/invalid.ttl</a>

#### 3.1.1.4.6. Value type

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:landform-element:value-type</a>
Label	Value type
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value <i>TBA</i> <i>MUST</i> have a <a href="#">sosa:hasResult</a> where the value node is an instance of <a href="#">tern:IRI</a> .
Comment	The value in <a href="#">sosa:hasResult</a> <i>MUST</i> be a <a href="#">tern:IRI</a> .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-element/shapes.ttl">/shapes/plot-description/landform-element/shapes.ttl</a>

Property	Value
Examples	Valid: <a href="/shapes/plot-description/landform-element/valid.ttl">/shapes/plot-description/landform-element/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-element/invalid.ttl">/shapes/plot-description/landform-element/invalid.ttl</a>

#### 3.1.1.4.7. Vocabulary

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:landform-element:vocabulary</a>
Label	Vocabulary
Definition	The value of <a href="#">tern:vocabulary</a> <i>MUST</i> match the pattern <a href="#">c1a58967-cb12-4c2c-a7ca-9cee2589919c\$</a> .
Comment	IRI of <a href="#">tern:vocabulary</a> in <a href="#">sosa:hasResult</a> <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/c1a58967-cb12-4c2c-a7ca-9cee2589919c">https://linked.data.gov.au/def/test/dawe-cv/c1a58967-cb12-4c2c-a7ca-9cee2589919c</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/c1a58967-cb12-4c2c-a7ca-9cee2589919c">https://linked.data.gov.au/def/test/dawe-cv/c1a58967-cb12-4c2c-a7ca-9cee2589919c</a> is the IRI for "Landform element codes".
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/landform-element/shapes.ttl">/shapes/plot-description/landform-element/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/landform-element/valid.ttl">/shapes/plot-description/landform-element/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/landform-element/invalid.ttl">/shapes/plot-description/landform-element/invalid.ttl</a>


#### 3.1.1.5. Climatic condition Observation

##### 3.1.1.5.1. Feature type


Property	Value
Identifier	<a href="#">urn:shapes:plot-description:climatic-condition:feature-type</a>
Label	Feature type
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value TBA <i>MUST</i> have a <a href="#">tern:featureType</a> with the value <a href="#">climate</a> .
Comment	TERN's ecologists have determined the feature type is <i>climate</i> , defined by the <a href="#">Australian Soil and Land Survey Field Handbook</a> .
Status	submitted <input type="radio"/>
Conformance Classes	TBA

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/climatic-condition/shapes.ttl">/shapes/plot-description/climatic-condition/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/climatic-condition/valid.ttl">/shapes/plot-description/climatic-condition/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/climatic-condition/invalid.ttl">/shapes/plot-description/climatic-condition/invalid.ttl</a>

#### 3.1.1.5.2. Result value

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:climatic-condition:result-value</a>
Label	Result value
Definition	The value of <a href="#">rdf:value</a> <i>MUST</i> exist in the Climatic condition codes controlled vocabulary.
Comment	The value in <a href="#">sosa:hasResult</a> <i>MUST</i> be a value in <a href="#">sh:in</a> , which is the Climatic condition codes controlled vocabulary.
Status	<a href="#">submitted</a> 
Conformance Classes	<a href="#">TBA</a>
Property	Value
Controlled list items	The result value <i>MUST</i> be from the following list:  <a href="#">Dry</a>  <a href="#">Wet</a>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/climatic-condition/shapes.ttl">/shapes/plot-description/climatic-condition/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/climatic-condition/valid.ttl">/shapes/plot-description/climatic-condition/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/climatic-condition/invalid.ttl">/shapes/plot-description/climatic-condition/invalid.ttl</a>

#### 3.1.1.5.3. Simple result

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:climatic-condition:simple-result</a>
Label	Simple result
Definition	Instances of <a href="#">tern:Observation</a> <i>MUST</i> have a <a href="#">sosa:hasSimpleResult</a> where the value is the same as the <a href="#">rdf:value</a> on the value node of <a href="#">sosa:hasResult</a> .
Comment	Value of <a href="#">sosa:hasSimpleResult</a> <i>MUST</i> be the same as the value in <a href="#">sosa:hasResult</a> .
Status	<a href="#">submitted</a> 

Property	Value
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/climatic-condition/shapes.ttl">/shapes/plot-description/climatic-condition/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/climatic-condition/valid.ttl">/shapes/plot-description/climatic-condition/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/climatic-condition/invalid.ttl">/shapes/plot-description/climatic-condition/invalid.ttl</a>

#### 3.1.1.5.4. Site visit

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:climatic-condition:site-visit</a>
Label	Site visit
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value TBA <i>MUST</i> have a value for <a href="#">tern:hasSiteVisit</a> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/climatic-condition/shapes.ttl">/shapes/plot-description/climatic-condition/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/climatic-condition/valid.ttl">/shapes/plot-description/climatic-condition/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/climatic-condition/invalid.ttl">/shapes/plot-description/climatic-condition/invalid.ttl</a>

#### 3.1.1.5.5. Used procedure

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:climatic-condition:used-procedure</a>
Label	Used procedure
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value TBA <i>MUST</i> have a <a href="#">sosa:usedProcedure</a> where the value is <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .
Comment	IRI of procedure <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> is the IRI for "Plot Description".
Status	submitted ○

Property	Value
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/climatic-condition/shapes.ttl">/shapes/plot-description/climatic-condition/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/climatic-condition/valid.ttl">/shapes/plot-description/climatic-condition/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/climatic-condition/invalid.ttl">/shapes/plot-description/climatic-condition/invalid.ttl</a>

#### 3.1.1.5.6. Value type

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:climatic-condition:value-type</a>
Label	Value type
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value TBA <i>MUST</i> have a <a href="#">sosa:hasResult</a> where the value node is an instance of <a href="#">tern:IRI</a> .
Comment	The value in <a href="#">sosa:hasResult</a> <i>MUST</i> be a <a href="#">tern:IRI</a> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/climatic-condition/shapes.ttl">/shapes/plot-description/climatic-condition/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/climatic-condition/valid.ttl">/shapes/plot-description/climatic-condition/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/climatic-condition/invalid.ttl">/shapes/plot-description/climatic-condition/invalid.ttl</a>

#### 3.1.1.5.7. Vocabulary

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:climatic-condition:vocabulary</a>
Label	Vocabulary
Definition	The value of <a href="#">tern:vocabulary</a> <i>MUST</i> match the pattern <a href="#">2ebfee89-92db-44b3-bb89-06dd92798ae6\$</a> .
Comment	IRI of <a href="#">tern:vocabulary</a> in <a href="#">sosa:hasResult</a> <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/2ebfee89-92db-44b3-bb89-06dd92798ae6">https://linked.data.gov.au/def/test/dawe-cv/2ebfee89-92db-44b3-bb89-06dd92798ae6</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/2ebfee89-92db-44b3-bb89-06dd92798ae6">https://linked.data.gov.au/def/test/dawe-cv/2ebfee89-92db-44b3-bb89-06dd92798ae6</a> is the IRI for "Climatic condition codes".
Status	submitted ○



Property	Value
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/climatic-condition/shapes.ttl">/shapes/plot-description/climatic-condition/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/climatic-condition/valid.ttl">/shapes/plot-description/climatic-condition/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/climatic-condition/invalid.ttl">/shapes/plot-description/climatic-condition/invalid.ttl</a>

### 3.1.1.6. Outcrop lithology Observation

#### 3.1.1.6.1. Feature type

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:outcrop-lithology:feature-type</a>
Label	Feature type
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value TBA <i>MUST</i> have a <a href="#">tern:featureType</a> with the value <a href="#">land surface</a> .
Comment	TERN's ecologists have determined the feature type is <i>land surface</i> , defined by the <a href="#">Australian Soil and Land Survey Field Handbook</a> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/outcrop-lithology/shapes.ttl">/shapes/plot-description/outcrop-lithology/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/outcrop-lithology/valid.ttl">/shapes/plot-description/outcrop-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/outcrop-lithology/invalid.ttl">/shapes/plot-description/outcrop-lithology/invalid.ttl</a>

#### 3.1.1.6.2. Result value


Property	Value
Identifier	<a href="#">urn:shapes:plot-description:outcrop-lithology:result-value</a>
Label	Result value
Definition	The value of <a href="#">rdf:value</a> <i>MUST</i> exist in the soil lithology codes controlled vocabulary.
Comment	The value in <a href="#">sosa:hasResult</a> <i>MUST</i> be a value in <a href="#">sh:in</a> , which is the soil lithology codes controlled vocabulary.
Status	submitted ○

Property	Value
Conformance Classes	TBA
Property	Value


Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <ul style="list-style-type: none"> <li>Adamellite</li> <li>Agglomerate</li> <li>Alcrete (bauxite)</li> <li>Amphibolite</li> <li>Andesite</li> <li>Anhydrite</li> <li>Aplite</li> <li>Arkose</li> <li>Ash (fine)</li> <li>Ash (sandy)</li> <li>Basalt</li> <li>Bombs (volcanic)</li> <li>Breccia</li> <li>Calcareenite</li> <li>Calcareous mudstone</li> <li>Calcareous sand</li> <li>Calcilutite</li> <li>Calcirudite</li> <li>Calcrete</li> <li>Charcoal</li> <li>Chert</li> <li>Clay</li> <li>Coal</li> </ul>

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/outcrop-lithology/shapes.ttl">/shapes/plot-description/outcrop-lithology/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/outcrop-lithology/valid.ttl">/shapes/plot-description/outcrop-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/outcrop-lithology/invalid.ttl">/shapes/plot-description/outcrop-lithology/invalid.ttl</a>

#### 3.1.1.6.3. Simple result

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:outcrop-lithology:simple-result</a>
Label	Simple result
Definition	Instances of <b>tern:Observation</b> <i>MUST</i> have a <b>sosa:hasSimpleResult</b> where the value is the same as the <b>rdf:value</b> on the value node of <b>sosa:hasResult</b> .
Comment	Value of <b>sosa:hasSimpleResult</b> <i>MUST</i> be the same as the value in <b>sosa:hasResult</b> .
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/outcrop-lithology/shapes.ttl">/shapes/plot-description/outcrop-lithology/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/outcrop-lithology/valid.ttl">/shapes/plot-description/outcrop-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/outcrop-lithology/invalid.ttl">/shapes/plot-description/outcrop-lithology/invalid.ttl</a>

#### 3.1.1.6.4. Site visit

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:outcrop-lithology:site-visit</a>
Label	Site visit
Definition	Instances of <b>tern:Observation</b> with <b>sosa:observedProperty</b> value TBA <i>MUST</i> have a value for <b>tern:hasSiteVisit</b> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/outcrop-lithology/shapes.ttl">/shapes/plot-description/outcrop-lithology/shapes.ttl</a>

Property	Value
Examples	Valid: <a href="/shapes/plot-description/outcrop-lithology/valid.ttl">/shapes/plot-description/outcrop-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/outcrop-lithology/invalid.ttl">/shapes/plot-description/outcrop-lithology/invalid.ttl</a>

#### 3.1.1.6.5. Used procedure

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:outcrop-lithology:used-procedure</a>
Label	Used procedure
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value <i>TBA</i> <i>MUST</i> have a <a href="#">sosa:usedProcedure</a> where the value is <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .
Comment	IRI of procedure <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/outcrop-lithology/shapes.ttl">/shapes/plot-description/outcrop-lithology/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/outcrop-lithology/valid.ttl">/shapes/plot-description/outcrop-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/outcrop-lithology/invalid.ttl">/shapes/plot-description/outcrop-lithology/invalid.ttl</a>

#### 3.1.1.6.6. Value type

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:outcrop-lithology:value-type</a>
Label	Value type
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value <i>TBA</i> <i>MUST</i> have a <a href="#">sosa:hasResult</a> where the value node is an instance of <a href="#">tern:IRI</a> .
Comment	The value in <a href="#">sosa:hasResult</a> <i>MUST</i> be a <a href="#">tern:IRI</a> .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/outcrop-lithology/shapes.ttl">/shapes/plot-description/outcrop-lithology/shapes.ttl</a>

Property	Value
Examples	Valid: <a href="/shapes/plot-description/outcrop-lithology/valid.ttl">/shapes/plot-description/outcrop-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/outcrop-lithology/invalid.ttl">/shapes/plot-description/outcrop-lithology/invalid.ttl</a>

#### 3.1.1.6.7. Vocabulary

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:outcrop-lithology:vocabulary</a>
Label	Vocabulary
Definition	The value of <a href="#">tern:vocabulary</a> <i>MUST</i> match the pattern <a href="#">1d50eb79-685f-45ea-84b4-627154eddede\$</a> .
Comment	IRI of <a href="#">tern:vocabulary</a> in <a href="#">sosa:hasResult</a> <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede">https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede">https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede</a> is the IRI for "Soil lithology codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/outcrop-lithology/shapes.ttl">/shapes/plot-description/outcrop-lithology/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/outcrop-lithology/valid.ttl">/shapes/plot-description/outcrop-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/outcrop-lithology/invalid.ttl">/shapes/plot-description/outcrop-lithology/invalid.ttl</a>

#### 3.1.1.7. Aspect Observation

##### 3.1.1.7.1. Feature type

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:aspect:feature-type</a>
Label	Feature type
Definition	The value of <a href="#">tern:featureType</a> <i>MUST</i> be <a href="#">landform</a> .
Comment	TERN's ecologists have determined the feature type is <i>landform</i> , defined by the <a href="#">Australian Soil and Land Survey Field Handbook</a> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols

Property	Value
Validators	<a href="/shapes/plot-description/aspect/shapes.ttl">/shapes/plot-description/aspect/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/aspect/valid.ttl">/shapes/plot-description/aspect/valid.ttl</a> Invalid: <a href="/shapes/plot-description/aspect/invalid.ttl">/shapes/plot-description/aspect/invalid.ttl</a>

#### 3.1.1.7.2. Simple result

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:aspect:simple-result</a>
Label	Simple result
Definition	The observation's <a href="#">sosa:hasSimpleResult</a> <i>MUST</i> have a value that is the same as the value in the value node of <a href="#">sosa:hasResult</a> .
Comment	Value of <a href="#">sosa:hasSimpleResult</a> <i>MUST</i> be the same as the value in <a href="#">sosa:hasResult</a> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/aspect/shapes.ttl">/shapes/plot-description/aspect/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/aspect/valid.ttl">/shapes/plot-description/aspect/valid.ttl</a> Invalid: <a href="/shapes/plot-description/aspect/invalid.ttl">/shapes/plot-description/aspect/invalid.ttl</a>

#### 3.1.1.7.3. Site visit

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:aspect:site-visit</a>
Label	Site visit
Definition	Observations <i>MUST</i> have a value for <a href="#">tern:hasSiteVisit</a> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/aspect/shapes.ttl">/shapes/plot-description/aspect/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/aspect/valid.ttl">/shapes/plot-description/aspect/valid.ttl</a> Invalid: <a href="/shapes/plot-description/aspect/invalid.ttl">/shapes/plot-description/aspect/invalid.ttl</a>

#### 3.1.1.7.4. Unit of measure

Property	Value
Identifier	<code>urn:shapes:plot-description:aspect:unit-of-measure</code>
Label	Unit of measure
Definition	The result <i>MUST</i> have <code>unit:DEG</code> as the value for <code>tern:unit</code> .
Comment	Result value's unit of measure <i>MUST</i> have the value <code>unit:DEG</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/aspect/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/aspect/valid.ttl</code>  Invalid: <code>/shapes/plot-description/aspect/invalid.ttl</code>

#### 3.1.1.7.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:aspect:used-procedure</code>
Label	Used procedure
Definition	The observation's <code>sosa:usedProcedure</code> <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .
Comment	IRI of procedure <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/aspect/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/aspect/valid.ttl</code>  Invalid: <code>/shapes/plot-description/aspect/invalid.ttl</code>

#### 3.1.1.7.6. Value range



Property	Value
Identifier	<code>urn:shapes:plot-description:aspect:value-range</code>
Label	Value range
Definition	The result <i>MUST</i> have a value between 0 exclusive and 360 inclusive.
Comment	Value <i>MUST</i> be between 0 exclusive and 360 inclusive.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/aspect/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/aspect/valid.ttl</code>  Invalid: <code>/shapes/plot-description/aspect/invalid.ttl</code>

#### 3.1.1.7.7. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:aspect:value-type</code>
Label	Value type
Definition	The result <i>MUST</i> be an instance of <code>tern:Float</code> .
Comment	The value of <code>sosa:hasResult</code> <i>MUST</i> be a <code>tern:Float</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/aspect/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/aspect/valid.ttl</code>  Invalid: <code>/shapes/plot-description/aspect/invalid.ttl</code>

#### 3.1.1.8. Slope type Observation

##### 3.1.1.8.1. Feature type

Property	Value
Identifier	<code>urn:shapes:plot-description:slope-type:feature-type</code>
Label	Feature type
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value TBA <i>MUST</i> have a <code>tern:featureType</code> with the value <code>landform</code> .

Property	Value
Comment	TERN's ecologists have determined the feature type is <i>landform</i> , defined by the <a href="#">Australian Soil and Land Survey Field Handbook</a> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/slope-type/shapes.ttl">/shapes/plot-description/slope-type/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/slope-type/valid.ttl">/shapes/plot-description/slope-type/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/slope-type/invalid.ttl">/shapes/plot-description/slope-type/invalid.ttl</a>

#### 3.1.1.8.2. Result value

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:slope-type:result-value</a>
Label	Result value
Definition	The value of <a href="#">rdf:value</a> <i>MUST</i> exist in the Plot slope codes controlled vocabulary.
Comment	The value in <a href="#">sosa:hasResult</a> <i>MUST</i> be a value in <a href="#">sh:in</a> , which is the Plot slope codes controlled vocabulary.
Status	submitted ○
Conformance Classes	TBA
Property	Value
Controlled list items	The result value <i>MUST</i> be from the following list:  <a href="#">Cliffed</a>  <a href="#">Gently inclined</a>  <a href="#">Level</a>  <a href="#">Moderately inclined</a>  <a href="#">Precipitous</a> `  ` <a href="#">Steep</a>  <a href="#">Very gently inclined</a>  <a href="#">Very steep</a>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols

Property	Value
Validators	/shapes/plot-description/slope-type/shapes.ttl
Examples	Valid: /shapes/plot-description/slope-type/valid.ttl Invalid: /shapes/plot-description/slope-type/invalid.ttl

#### 3.1.1.8.3. Simple result

Property	Value
Identifier	urn:shapes:plot-description:slope-type:simple-result
Label	Simple result
Definition	Instances of <b>tern:Observation</b> <i>MUST</i> have a <b>sosa:hasSimpleResult</b> where the value is the same as the <b>rdf:value</b> on the value node of <b>sosa:hasResult</b> .
Comment	Value of <b>sosa:hasSimpleResult</b> <i>MUST</i> be the same as the value in <b>sosa:hasResult</b> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/slope-type/shapes.ttl
Examples	Valid: /shapes/plot-description/slope-type/valid.ttl Invalid: /shapes/plot-description/slope-type/invalid.ttl

#### 3.1.1.8.4. Site visit

Property	Value
Identifier	urn:shapes:plot-description:slope-type:site-visit
Label	Site visit
Definition	Instances of <b>tern:Observation</b> with <b>sosa:observedProperty</b> value <b>TBA</b> <i>MUST</i> have a value for <b>tern:hasSiteVisit</b> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	/shapes/plot-description/slope-type/shapes.ttl
Examples	Valid: /shapes/plot-description/slope-type/valid.ttl Invalid: /shapes/plot-description/slope-type/invalid.ttl

### 3.1.1.8.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:slope-type:used-procedure</code>
Label	Used procedure
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value <i>TBA</i> <i>MUST</i> have a <code>sosa:usedProcedure</code> where the value is <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .
Comment	IRI of procedure <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope-type/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope-type/valid.ttl</code>  Invalid: <code>/shapes/plot-description/slope-type/invalid.ttl</code>

### 3.1.1.8.6. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:slope-type:value-type</code>
Label	Value type
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value <i>TBA</i> <i>MUST</i> have a <code>sosa:hasResult</code> where the value node is an instance of <code>tern:IRI</code> .
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a <code>tern:IRI</code> .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope-type/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope-type/valid.ttl</code>  Invalid: <code>/shapes/plot-description/slope-type/invalid.ttl</code>

### 3.1.1.8.7. Vocabulary


Property	Value
Identifier	<code>urn:shapes:plot-description:slope-type:vocabulary</code>
Label	Vocabulary
Definition	The value of <code>tern:vocabulary</code> <i>MUST</i> match the pattern <code>d893e669-c530-4bc3-a057-a5799ffcb5db\$</code> .
Comment	IRI of <code>tern:vocabulary</code> in <code>sosa:hasResult</code> <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/d893e669-c530-4bc3-a057-a5799ffcb5db">https://linked.data.gov.au/def/test/dawe-cv/d893e669-c530-4bc3-a057-a5799ffcb5db</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/d893e669-c530-4bc3-a057-a5799ffcb5db">https://linked.data.gov.au/def/test/dawe-cv/d893e669-c530-4bc3-a057-a5799ffcb5db</a> is the IRI for "Plot slope codes".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope-type/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope-type/valid.ttl</code>  Invalid: <code>/shapes/plot-description/slope-type/invalid.ttl</code>

### 3.1.1.9. Surface strew lithology Observation

#### 3.1.1.9.1. Feature type

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-lithology:feature-type</code>
Label	Feature type
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value TBA <i>MUST</i> have a <code>tern:featureType</code> with the value <code>land surface</code> .
Comment	TERN's ecologists have determined the feature type is <i>land surface</i> , defined by the <a href="#">Australian Soil and Land Survey Field Handbook</a> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/surface-strew-lithology/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/surface-strew-lithology/valid.ttl</code>  Invalid: <code>/shapes/plot-description/surface-strew-lithology/invalid.ttl</code>


### 3.1.1.9.2. Result value

Property	Value
Identifier	<code>urn:shapes:plot-description:surface-strew-lithology:result-value</code>
Label	Result value
Definition	The value of <code>rdf:value</code> <i>MUST</i> exist in the soil lithology codes controlled vocabulary.
Comment	The value in <code>sosa:hasResult</code> <i>MUST</i> be a value in <code>sh:in</code> , which is the soil lithology codes controlled vocabulary.
Status	submitted 
Conformance Classes	TBA
Property	Value


Property	Value
Controlled list items	<p>The result value MUST be from the following list:</p> <ul style="list-style-type: none"> <li>Adamellite</li> <li>Agglomerate</li> <li>Alcrete (bauxite)</li> <li>Amphibolite</li> <li>Andesite</li> <li>Anhydrite</li> <li>Aplite</li> <li>Arkose</li> <li>Ash (fine)</li> <li>Ash (sandy)</li> <li>Basalt</li> <li>Bombs (volcanic)</li> <li>Breccia</li> <li>Calcareenite</li> <li>Calcareous mudstone</li> <li>Calcareous sand</li> <li>Calcilutite</li> <li>Calcirudite</li> <li>Calcrete</li> <li>Charcoal</li> <li>Chert</li> <li>Clay</li> <li>Coal</li> </ul>

Property	Value
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-lithology/shapes.ttl">/shapes/plot-description/surface-strew-lithology/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-lithology/valid.ttl">/shapes/plot-description/surface-strew-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-lithology/invalid.ttl">/shapes/plot-description/surface-strew-lithology/invalid.ttl</a>

#### 3.1.1.9.3. Simple result

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:surface-strew-lithology:simple-result</a>
Label	Simple result
Definition	Instances of <code>tern:Observation</code> <i>MUST</i> have a <code>sosa:hasSimpleResult</code> where the value is the same as the <code>rdf:value</code> on the value node of <code>sosa:hasResult</code> .
Comment	Value of <code>sosa:hasSimpleResult</code> <i>MUST</i> be the same as the value in <code>sosa:hasResult</code> .
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-lithology/shapes.ttl">/shapes/plot-description/surface-strew-lithology/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-lithology/valid.ttl">/shapes/plot-description/surface-strew-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-lithology/invalid.ttl">/shapes/plot-description/surface-strew-lithology/invalid.ttl</a>

#### 3.1.1.9.4. Site visit

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:surface-strew-lithology:site-visit</a>
Label	Site visit
Definition	Instances of <code>tern:Observation</code> with <code>sosa:observedProperty</code> value TBA <i>MUST</i> have a value for <code>tern:hasSiteVisit</code> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted 
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-lithology/shapes.ttl">/shapes/plot-description/surface-strew-lithology/shapes.ttl</a>



Property	Value
Examples	Valid: <a href="/shapes/plot-description/surface-strew-lithology/valid.ttl">/shapes/plot-description/surface-strew-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-lithology/invalid.ttl">/shapes/plot-description/surface-strew-lithology/invalid.ttl</a>

#### 3.1.1.9.5. Used procedure

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:surface-strew-lithology:used-procedure</a>
Label	Used procedure
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value <i>TBA</i> <i>MUST</i> have a <a href="#">sosa:usedProcedure</a> where the value is <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .
Comment	IRI of procedure <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-lithology/shapes.ttl">/shapes/plot-description/surface-strew-lithology/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-lithology/valid.ttl">/shapes/plot-description/surface-strew-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-lithology/invalid.ttl">/shapes/plot-description/surface-strew-lithology/invalid.ttl</a>

#### 3.1.1.9.6. Value type

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:surface-strew-lithology:value-type</a>
Label	Value type
Definition	Instances of <a href="#">tern:Observation</a> with <a href="#">sosa:observedProperty</a> value <i>TBA</i> <i>MUST</i> have a <a href="#">sosa:hasResult</a> where the value node is an instance of <a href="#">tern:IRI</a> .
Comment	The value in <a href="#">sosa:hasResult</a> <i>MUST</i> be a <a href="#">tern:IRI</a> .
Status	submitted ○
Conformance Classes	<i>TBA</i>
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-lithology/shapes.ttl">/shapes/plot-description/surface-strew-lithology/shapes.ttl</a>

Property	Value
Examples	Valid: <a href="/shapes/plot-description/surface-strew-lithology/valid.ttl">/shapes/plot-description/surface-strew-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-lithology/invalid.ttl">/shapes/plot-description/surface-strew-lithology/invalid.ttl</a>

### 3.1.1.9.7. Vocabulary

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:surface-strew-lithology:vocabulary</a>
Label	Vocabulary
Definition	The value of <a href="#">tern:vocabulary</a> <i>MUST</i> match the pattern <a href="#">1d50eb79-685f-45ea-84b4-627154eddede\$</a> .
Comment	IRI of <a href="#">tern:vocabulary</a> in <a href="#">sosa:hasResult</a> <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede">https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede">https://linked.data.gov.au/def/test/dawe-cv/1d50eb79-685f-45ea-84b4-627154eddede</a> is the IRI for "Soil lithology codes".
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/surface-strew-lithology/shapes.ttl">/shapes/plot-description/surface-strew-lithology/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/surface-strew-lithology/valid.ttl">/shapes/plot-description/surface-strew-lithology/valid.ttl</a>  Invalid: <a href="/shapes/plot-description/surface-strew-lithology/invalid.ttl">/shapes/plot-description/surface-strew-lithology/invalid.ttl</a>

### 3.1.1.10. Slope Observation

#### 3.1.1.10.1. Feature type

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:slope:feature-type</a>
Label	Feature type
Definition	The value of <a href="#">tern:featureType</a> <i>MUST</i> be <a href="#">landform</a> .
Comment	TERN's ecologists have determined the feature type is <i>landform</i> , defined by the <a href="#">Australian Soil and Land Survey Field Handbook</a> .
Status	submitted <input type="radio"/>
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols

Property	Value
Validators	<a href="/shapes/plot-description/slope/shapes.ttl">/shapes/plot-description/slope/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/slope/valid.ttl">/shapes/plot-description/slope/valid.ttl</a> Invalid: <a href="/shapes/plot-description/slope/invalid.ttl">/shapes/plot-description/slope/invalid.ttl</a>

#### 3.1.1.10.2. Simple result

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:slope:simple-result</a>
Label	Simple result
Definition	The observation's <a href="#">sosa:hasSimpleResult</a> <i>MUST</i> have a value that is the same as the value in the value node of <a href="#">sosa:hasResult</a> .
Comment	Value of <a href="#">sosa:hasSimpleResult</a> <i>MUST</i> be the same as the value in <a href="#">sosa:hasResult</a> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/slope/shapes.ttl">/shapes/plot-description/slope/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/slope/valid.ttl">/shapes/plot-description/slope/valid.ttl</a> Invalid: <a href="/shapes/plot-description/slope/invalid.ttl">/shapes/plot-description/slope/invalid.ttl</a>

#### 3.1.1.10.3. Site visit

Property	Value
Identifier	<a href="#">urn:shapes:plot-description:slope:site-visit</a>
Label	Site visit
Definition	Observations <i>MUST</i> have a value for <a href="#">tern:hasSiteVisit</a> .
Comment	Observations following the Plot Description protocol are made in the context of a site visit.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<a href="/shapes/plot-description/slope/shapes.ttl">/shapes/plot-description/slope/shapes.ttl</a>
Examples	Valid: <a href="/shapes/plot-description/slope/valid.ttl">/shapes/plot-description/slope/valid.ttl</a> Invalid: <a href="/shapes/plot-description/slope/invalid.ttl">/shapes/plot-description/slope/invalid.ttl</a>

#### 3.1.1.10.4. Unit of measure

Property	Value
Identifier	<code>urn:shapes:plot-description:slope:unit-of-measure</code>
Label	Unit of measure
Definition	The result <i>MUST</i> have <code>unit:DEG</code> as the value for <code>tern:unit</code> .
Comment	Result value's unit of measure <i>MUST</i> have the value <code>unit:DEG</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope/valid.ttl</code>  Invalid: <code>/shapes/plot-description/slope/invalid.ttl</code>

#### 3.1.1.10.5. Used procedure

Property	Value
Identifier	<code>urn:shapes:plot-description:slope:used-procedure</code>
Label	Used procedure
Definition	The observation's <code>sosa:usedProcedure</code> <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .
Comment	IRI of procedure <i>MUST</i> have the value <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> .  <a href="https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32">https://linked.data.gov.au/def/test/dawe-cv/1ff9e97c-3bdd-44c9-bdd3-401fa31c0b32</a> is the IRI for "Plot Description".
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope/valid.ttl</code>  Invalid: <code>/shapes/plot-description/slope/invalid.ttl</code>

#### 3.1.1.10.6. Value range

Property	Value
Identifier	<code>urn:shapes:plot-description:slope:value-range</code>
Label	Value range
Definition	The result <i>MUST</i> have a value between 0 and 90 inclusively.
Comment	Value <i>MUST</i> be between 0 and 90 inclusive.
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope/valid.ttl</code>  Invalid: <code>/shapes/plot-description/slope/invalid.ttl</code>

#### 3.1.1.10.7. Value type

Property	Value
Identifier	<code>urn:shapes:plot-description:slope:value-type</code>
Label	Value type
Definition	The result <i>MUST</i> be an instance of <code>tern:Float</code> .
Comment	The value of <code>sosa:hasResult</code> <i>MUST</i> be a <code>tern:Float</code> .
Status	submitted ○
Conformance Classes	TBA
Source	TERN Ecosystem Surveillance Ecological Monitoring Protocols
Validators	<code>/shapes/plot-description/slope/shapes.ttl</code>
Examples	Valid: <code>/shapes/plot-description/slope/valid.ttl</code>  Invalid: <code>/shapes/plot-description/slope/invalid.ttl</code>

## 3.2. TERN Ontology Conformance

TBD.

# 4. Editors Notes

## 4.1. Working titles

Both this specification and the ecological field collection protocol do not have canonical names yet.

The below will be changed and updated once formal names are provided by DAWE.

- Ecological Data Exchange Specification (this document)
- TERN Ecosystem Surveillance Ecological Monitoring Protocols

## 4.2. Placeholders

### 4.2.1. Placeholder text

Placeholder values **TBA**, **TBD** and **TBC** must be replaced with actual values.

### 4.2.2. Placeholder IRIs

IRIs of controlled vocabularies are currently placeholders with the namespace <https://linked.data.gov.au/def/test/dawe-cv/>. These IRIs must be replaced once the authoritative IRI is known.