

**Town of Tofield** 

PO Box 30 Tofield, AB T0B 4J0 Phone: (780) 662-3269

(780) 662-3929 Fax:



www.tofieldalberta.ca

pplication Date:		Estimated Project Start Date:
		Estimated Project Completion Date:
pplicant Type:  Homeowner e Permit Holder hereby certifies that this installar ssue of the permit, (b) is suspended or abandon		On (Labour & Material including Equipment)   y Codes Act. A permit may expire if the undertaking to which it applies: (a) is not commenced within 90 days ed when applied for in writing prior to permit expiry date.
Owner Name:	N	lailing Address:
City:	Prov: Postal Code:	Phone: Fax:
Owner's Signature / Declaration (Sing "I hereby declare I am the owner of the premis applicable Act and Regulations"	gle Family Residential Only)	Email:eside on the property. I am doing the work myself, and assume responsibility for compliance with the
Company Name:	N	lailing Address:
City:	Prov:Postal Code:	Phone:Fax:
Cell:	Email:	
PSDS Installer's Number	Print Private Sewage Installer's Name	Installer's Signature
Project Location in the Town of	Tofield:	
Street Address:		
Legal Subdivision: Part of:	Section: Town	nship: Range: West of:
Subdivision Name:	Lot: _	Block: Plan:
Directions:		
INSTALLATION:	TYPE OF WORK:	TREATMENT / DISPOSAL METHODS (COMPLETE ALL APPLICABLE ITEMS):
☐ New installation ☐ Alteration	Commercial	☐ Treatment Mound ☐ Disposal Field
Expected Volume of Sewage:	Residential Number of Bedrooms	☐ Sewage Lagoon ☐ Open (Surface) Discharge
	— Trained of Boardonie	☐ Sand Filter ☐ Packaged Sewage Treatment Plant
☐ m3 per day ☐ Litres per day	☐ Work Camp	☐ Septic Tank Size
Gallons per day	Number of Men	
	Other	Sewage Holding Tank Size:
		Other
Description of Work:		
	COMPLETE THE ATTACHE	D SITE EVALUATION REPORT.
Permit Fee: \$	le ☐ Interac ☐ M/C ☐ Visa	The Inspections Group Inc. 300W, 14310 – 111 Avenue NW EDMONTON AB T5M 3Z7 Phone: (780) 454 5048 Toll Free: (866) 554 5048 Fax: (780) 454 5222 Toll Free: (866) 454 5222
Total Cost: \$	Receipt #:	www.inspectionsgroup.com
*\$4.50 or 4% of the permit fee maximum	n \$560.00	questions@inspectionsgroup.com

REMIT PAYMENT AND APPLICATION TO THE INSPECTIONS GROUP INC.



## PSDS PERMIT APPLICATION CHECKLIST

A COMPLETE SITE EVALUATION REPORT, AS PER THE 2021 ALBERTA PRIVATE SEWAGE SYSTEMS STANDARD OF PRACTICE (SOP) PART 7 SITE EVALUATION, IS REQUIRED WITH THE PERMIT APPLICATION. THE FOLLOWING DOCUMENTS ARE TO BE INCLUDED WITH YOUR COMPLETE SITE EVALUATION REPORT.

TRI	EATMENT FIELD, MOUND, OR LFH AT-GRADE SYSTEMS
	Wastewater strength projected for the development.
	Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.
	Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and landscape, location of at least two (2) soil profile investigation locations in the area of the soil-based treatment system, etc.
	The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification nomenclature and includes complete site specific soil profile logs for at least two (2) locations, soil sample results of the most limiting condition, GPS coordinates of each soil profile with permanent benchmark, depth of each horizon identified, soil Colour (Munsell Nomenclature), soil texture, structure and grade, depth to most limiting condition, restrictive layer (if applicable), etc.
	Description of treatment system including a system diagram, piping to tank details, initial treatment (septic tank/ treatment plant), piping to and throughout final soil treatment component.
	Soil based treatment system design calculations, including pressure distribution system – if applicable.
	Tank certification information – CAN/CSA-B66 certificate or equivalent
	Package sewage treatment plant – treatment capacity, equipment structural requirements and certification (if applicable).
	Pump, if required by design. Manufacturer and pump curve to ensure flow capacity.
	High level alarm make/model.
	Filter type.
НО	PLDING TANK
	Expected wastewater volume/day including tank storage capacity, bedroom count – current and proposed.
	Site plan showing placement of system with setbacks noted for property, buildings and water source.
	Tank certification information – CAN/CSA-B66 certificate or equivalent
	Tank certification information – CAN/CSA-B66 certificate or equivalent High level alarm make/model
	High level alarm make/model
ОР	High level alarm make/model  EN DISCHARGE SYSTEM
□ <b>OP</b>	High level alarm make/model  EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.
ОР	EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.  Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with
□ <b>OP</b>	EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.  Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and
□ <b>OP</b>	EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.  Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with
<b>OP</b>	EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.  Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and landscape, location of at least one (1) soil profile investigation location in the area of the soil-based treatment system, etc.
<b>OP</b>	EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.  Site plan — as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and landscape, location of at least one (1) soil profile investigation location in the area of the soil-based treatment system, etc. The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification nomenclature and includes complete site specific soil profile logs for at least one (1) location, soil sample results of the most limiting condition, GPS coordinates of each soil profile with permanent benchmark, depth of each horizon identified, soil Colour (Munsell Nomenclature), soil texture, structure and grade, depth to most limiting condition, restrictive layer (if
OP	EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.  Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and landscape, location of at least one (1) soil profile investigation location in the area of the soil-based treatment system, etc.  The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification nomenclature and includes complete site specific soil profile logs for at least one (1) location, soil sample results of the most limiting condition, GPS coordinates of each soil profile with permanent benchmark, depth of each horizon identified, soil Colour (Munsell Nomenclature), soil texture, structure and grade, depth to most limiting condition, restrictive layer (if applicable), etc.
<b>OP</b>	EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.  Site plan — as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and landscape, location of at least one (1) soil profile investigation location in the area of the soil-based treatment system, etc. The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification nomenclature and includes complete site specific soil profile logs for at least one (1) location, soil sample results of the most limiting condition, GPS coordinates of each soil profile with permanent benchmark, depth of each horizon identified, soil Colour (Munsell Nomenclature), soil texture, structure and grade, depth to most limiting condition, restrictive layer (if
OP	EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.  Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and landscape, location of at least one (1) soil profile investigation location in the area of the soil-based treatment system, etc.  The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification nomenclature and includes complete site specific soil profile logs for at least one (1) location, soil sample results of the most limiting condition, GPS coordinates of each soil profile with permanent benchmark, depth of each horizon identified, soil Colour (Munsell Nomenclature), soil texture, structure and grade, depth to most limiting condition, restrictive layer (if applicable), etc.  Description of treatment system including a system diagram, piping to tank details, Septic Tansnk, piping to and throughout
OP	EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.  Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and landscape, location of at least one (1) soil profile investigation location in the area of the soil-based treatment system, etc.  The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification nomenclature and includes complete site specific soil profile logs for at least one (1) location, soil sample results of the most limiting condition, GPS coordinates of each soil profile with permanent benchmark, depth of each horizon identified, soil Colour (Munsell Nomenclature), soil texture, structure and grade, depth to most limiting condition, restrictive layer (if applicable), etc.  Description of treatment system including a system diagram, piping to tank details, Septic Tansnk, piping to and throughout final soil treatment component.
OP	EN DISCHARGE SYSTEM  Peak flow volume calculations for the development including confirmation plumbing fixture unit total is not exceeded.  Site plan – as per current SOP Section 7.1 Site Characteristics and Evaluation Procedures including placement of system with setbacks noted for property lines, buildings, water sources/courses, description of surface features including slope and landscape, location of at least one (1) soil profile investigation location in the area of the soil-based treatment system, etc.  The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification nomenclature and includes complete site specific soil profile logs for at least one (1) location, soil sample results of the most limiting condition, GPS coordinates of each soil profile with permanent benchmark, depth of each horizon identified, soil Colour (Munsell Nomenclature), soil texture, structure and grade, depth to most limiting condition, restrictive layer (if applicable), etc.  Description of treatment system including a system diagram, piping to tank details, Septic Tansnk, piping to and throughout final soil treatment component.  Tank certification information – CAN/CSA CSA-B66 certificate or equivalent



# **PSDS Application Design Summary**

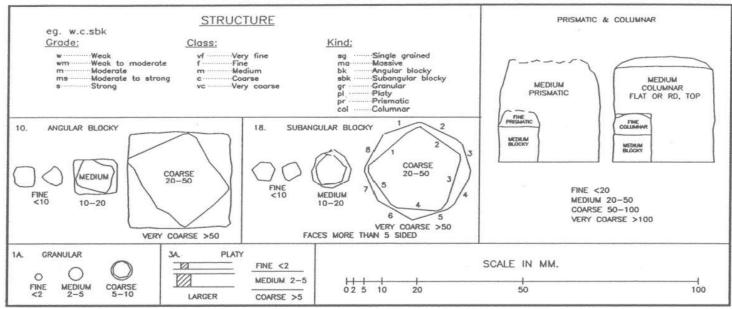
## This document must be filled out with ALL relevant information or your application may be returned

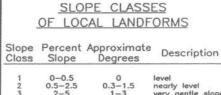
					Lega	ıl Laı	nd Descript	tion					
Quarter	Section	n	Townshi	р	Range	١	West of		Lot	Bloc	(	Pla	ın
					M	unic	cipal Addres	SS					
	Development Details												
Property type New – Renovation – Repair - Replacement (Circle One)								le One)					
Total Bedro	oms	Oc	cupant Tot	al	Avera	age [	Daily Flow	Peak I	Daily F	low			
					9	Soil I	nformation						
Test Pit(s) [	Depth	Liı	miting Laye	er De	epth	Re	estrictive La	yer Dept	:h	Depth	to Seas	sonal \	Vater
Design Loading Rate Linear Lo			oadir	ading Rate		Infiltration A	Area		Texture	Sha	pe	Grade	
Primary Tre	eatmen	t <mark>(Cir</mark>	cle all that	арр	<mark>oly)</mark> Holo	ding	Tank – Sep	tic Tank	– Trea	tment f	Plant		
Tank Size				Tar	nk Make	e/Mo	vlodel F				Filter Type		
High Level	Alarm N	/lake	/Model				Effluent	Filter Ma	ake/M	odel			
					Add	ition	nal Informat	tion					
All designs	must m	eet	the require	emer	nts of th	ne cu	urrent Stand	dard of F	ractic	e availa	ble at:		
https://ebs	safety	code	s.ab.ca/do	cum	ents/w	ebdo	ocs/PI/PSS	SOP 20	<u>21-we</u>	b6.pdf			
Please note	e: NO W	ORK	MAY STAI	RT W	VITHOU	TAF	PERMIT BEI	NG ISSU	ED. <u>An</u>	applica	ition is r	not a P	ermit.
Design Doc	Design Documents may be found at: <a href="https://www.alberta.ca/private-sewage-design-tools">https://www.alberta.ca/private-sewage-design-tools</a>												

#### Alberta Private Sewage Treatment System Soil Profile Log Form Owner Name or Job ID. Legal Land Location Test Pit GPS Coordinates LSD-1/4 Sec Twp Rg Mer Lot Block Plan Easting Northing Overall site slope % Vegetation notes: Slope position of test pit: Test hole No. Depth of Lab sample #1 Depth of Lab sample #2 Soil Subgroup Parent Material Drainage Depth Hori-Lab or Colour Gleying Mottling Structure Grade Consistence Moisture % Coarse Texture HT Fragments zon (cm) (in) Depth to Groundwater Limiting Soil Layer Characteristic, describe Depth to Seasonally Saturated Soil Depth to Limiting Soil Layer Limiting Topography Depth to Highly Permeable Layer **Key Limiting Features on System Design** Weather Condition notes: Comments: such as root depth and abundance or other pertinent observations:

Onsite Sewage System Site Evaluation Lot Diagram Sketch and Notes Project Name: Lot or Legal Description: Show the proposed ÎN location of the onsite sewage system and the following items indicating their distances from the proposed system: trees floodplains wells water sources surface water bedrock outcrops buildings property lines easement lines ditches or interceptors banks or steep fills driveways existing sewage systems underground utilities soil test pit and borehole locations Test Pit P1 □ drainage course slope direction borehole BH 1 Comments: Property line GPS coordinates: GPS coordinates of well: GPS coordinate of tank: GPS coordinates of soil treatment component corners:

#### Figure 4: Diagrammatic representation of soil structure





0-0.5 .5-2.5	0.3-1.5	level nearly level
2-5	1-3	very gentle slopes
6-9	3.5-5	gentle slopes
10-15	6-8.5	moderate slopes
16-30	9-17	strong slopes
31-45	17-24	very strong slopes
46-70	25-35	extreme slopes
1-100	35-45	steep slopes
>100	>45	very steep slopes

SURFACE	STONIN	ESS
	Surface Area	Distance Apart (cm
S0 non-stony S1 slightly stony S2 moderately stony s3 very stony S4 exceedingly stony S5 excessively stony	<0.01% 0.01-0.1% 0.1-3% 3-15% 15-50%	>30 10-30 2-10 1-2 0.1-5 0.1

SLO	PE	POSITION
c	-	crest
u	-	upper slope
m	-	mid slope
	-	lower slope
t		toe
d	-	depression
1	-	level

U	RAINAGE
VR	<ul> <li>very rapidly</li> </ul>
R	- rapidly
w	- well
M	- moderately well
1	- imperfectly
P	- poorly
VP	- very poorly

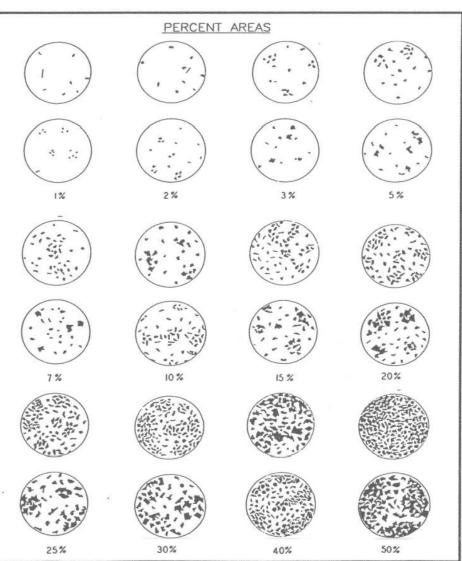


Table 10. Types, kinds and classes of soil structure.

Type  Blocklike - soil particles arranged around a point and bounded by flat or rounded surfaces  BK	Kind (Kind Code)  Angular blocky (ABK) peds bounded by flattened, rectangular faces intersecting at relatively sharp angles	Structure Class and Code VF: very fine angular blocky F: fine angular blocky M: medium angular blocky C: coarse angular blocky VC: very coarse angular blocky  5-10 10-20 20-50 VC: very coarse angular blocky >50	m)
	Subangular blocky (SBK): peds bounded by slightly rounded, subrectangular faces with vertices <sup>2</sup> of their intersections mostly subrounded	VF: very fine subangular blocky F: fine subangular blocky M: medium subangular blocky C: coarse subangular blocky VC: very coarse subangular blocky >50	
	<b>Granular (GR):</b> spheroidal peds bounded by curved or very irregular faces that do not adjoin those of adjacent peds	VF: very fine granular       <1         F: fine granular       1-2         M: medium granular       2-5         C: coarse granular       5-10         VC: very coarse granular       >10	
Platelike: soil particles arranged around a horizontal plane and generally bounded by relatively flat horizontal surfaces PL	<b>Platy (PL):</b> peds flat or platelike; horizontal planes more or less well developed	VF: very fine platy       <1         F: fine platy       1-2         M: medium platy       2-5         C: coarse platy       5-10         VC: very coarse platy       >10	
Prismlike: soil particles arranged around a vertical axis and bounded by relatively flat vertical surfaces.  PR	<b>Prismatic</b> ( <b>PR</b> ): vertical faces of peds well defined and vertices <sup>2</sup> angular (edges sharp); prism tops essentially flat	VF: very fine prismatic <10 F: fine prismatic 10-20 M: medium prismatic 20-50 C: coarse prismatic 50-100 VC: very coarse prismatic >100	
	<b>Columnar (COL):</b> vertical edges near top of columns not sharp (vertices <sup>2</sup> subrounded); column tops flat, rounded, or irregular	VF: very fine columnar       <10         F: fine columnar       10-20         M: medium columnar       20-50         C: coarse columnar       50-100         VC: very coarse prismatic       >100	
<b>Structureless:</b> no observable aggregation of primary particles or no definite	Single grained (SGR):	Loose, incoherent mass of individual prima particles, as in sands	ary
orderly arrangement around natural lines of weakness  MA	Massive (MA):	amorphous; a coherent mass showing no evidence any distinct arrangement of soil particles; separa into clusters of particles; not peds	

Cloddy (CDY): not a structure; used to indicate the condition of some ploughed surface, grade, class, and shape too varied to be described in standard terms.

Consistence – moist so	Consistence – moist soil						
• Loose:	No intact sample can be obtained.						
• Friable:	Structure breaks down with slight force between the fingers.						
• Firm:	Structure breaks down with moderate force between the fingers.						
• Extremely firm:	Structure breaks down with moderate force between the hands or						
-	slight foot pressure.						
• Rigid:	Structure breaks down only with foot pressure.						

The size limits refer to measurements in the smallest dimension of platy, prismatic, and columnar peds and to the largest of the nearly equal dimensions of blocky and granular peds.

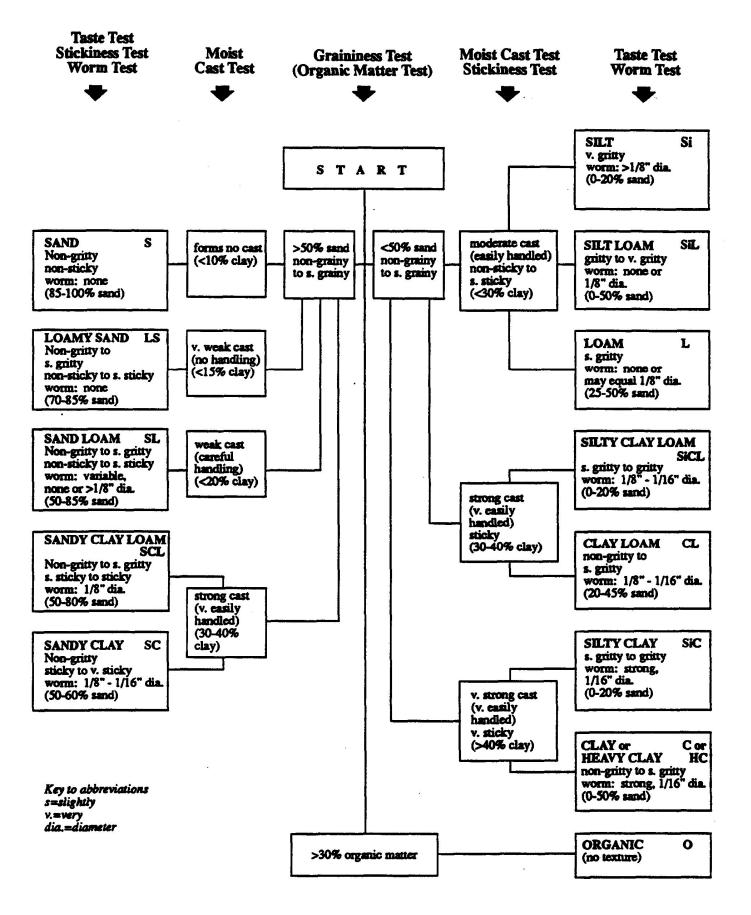
Definition of vertex (plural, vertices): the intersection of two planes of a geometrical figure.

# **Structure Grade Descriptions**

Code		Structure Grade Definition
0	Massive /or single grained used to describe sands	This describes a soil that has no developed structure. There is no aggregation of primary particles or no definite orderly arrangement around natural lines of weakness.
1	Weak	Peds are either indistinct and barely evident in place, or observable in place but incompletely separated from adjacent peds. When disturbed, the soil material separates into a mixture of only a few entire peds, many broken peds and much unaggregated material.
2	Moderate	Peds are moderately durable, and are evident but not distinct in the undisturbed soil. When disturbed, the soil material parts into a mixture of many well formed, entire peds, some broken peds, and little unaggregated material. The peds may be handled without breaking and they part from adjoining peds to reveal nearly entire surfaces which have properties distinct from those caused by fracturing.
3	Strong	Peds are durable and evident in the undisturbed soil, adhere weakly to one another, withstand displacement and separate cleanly when the soil is disturbed. When removed, the soil material separates mainly into entire peds. Surfaces of unbroken peds have distinctive properties, compared to surfaces that result from fracturing.

# Mottling Descriptions

Parameter	Code	Description
Abundance	Few	<2% of the exposed surface
	Common	2-20% of the exposed surface
	Many	>20% of the exposed surface
Size	Fine	< 5 mm
	Medium	5-15 mm
	Coarse	>15 mm
Contrast	Faint	Evident only on close examination. Faint mottles commonly have the same hue as the colour to which they are compared and differ by no more than 1 unit of chroma or 2 units of value. Some faint mottles of similar but low chroma and value can differ by 2.5 units of hue.
	Distinct	Readily seen, but contrast only moderately with the colour to which they are compared. Distinct mottles commonly have the same hue as the colour to which they are compared, but differ by 2 to 4 units of chroma or 3 to 4 units of value; or differ from the colour to which they are compared by 2.5 units of hue but by no ore than 1 unit of chroma or 2 units of value.
	Prominent	Contrast strongly with the colour to which they are compared. Prominent mottles are commonly the most obvious colour feature in a soil. Prominent mottles that have medium chroma and value commonly differ from the colour to which they are compared by at least 5 units of hue if chroma and value are the same; or at least 1 unit of chroma or 2 units of value if hue differs by 2.5 units.



<b>✓</b>	Complete	drawing	of propo	sed syste	em, lavoi	M DRAW	ocation (	of tank et	C.		
·			ргорс	Joed System		uis, posit				No.	)
Commen	its:										
											_
										 	_
						 					_
											_
						 	 			 	_