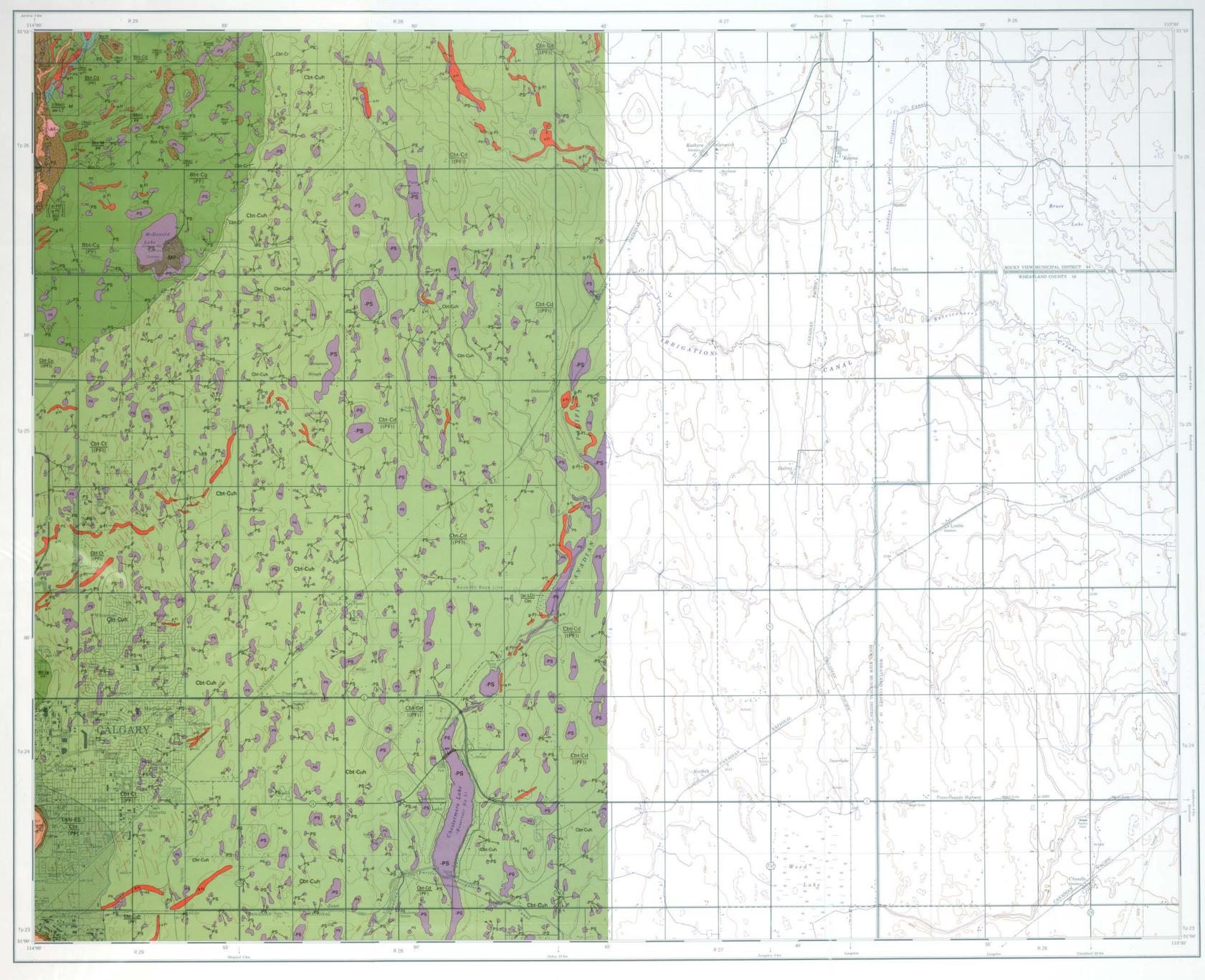
SYMBOL	STRATIGRAPHIC UNIT	LITHOLOGY (Material)	LITHOGENESIS (Origin of material)	MORPHOLOGY (Descriptive and/ or genetic)	COMMENT
AME		diverse lithology; boulders to clay; recompacted pabble-loam (till) most common material	material deposited by man includes both compacted and uncompacted fills	variable; generally flat to undulating	fill is of variable thickness and limited areal extent
PS		Poorly sorted silt, sand, clay and organic sediment; organic loam	sediment deposited in ponds of all origins	flat to gently undulating	sediment is commonly overlain by water for at least part of the year
AF	*	silt, sand, gravel with minor clay	sediment deposited at or beyond the toe of a slope by ephemeral streams	flat to undulating and surface inclined downslope, generally fan shaped	
g-FC		gravel, minor sand	fluvial-channel sediment	not included in unit definition	thickness of fluvial sediment is generally not known
i-81		gravel, minor sand; poorly sorted, contains inclusions of unsorted material	fluvial-channel sediment deposited on, within, or beneath glacial ice	flat to hummocky; commonly occurs in discontinuous, sinuous ridges a few 10°s of metres across and a few metres high	potential source for fill-gravel and road maintenance
imer) ig-El -M	Balzac Drift (unit b)	pebble-loam (till) overlying sand and gravel	glacial sediment overlying fluvial-channel sediment deposited on, within or beneath ice.	smooth undulating surfaces molded by ice flow	till is discontinuous but in places i to 4 metres thick overlying poorly sorted ice-contact fluvial-channel sediment
si-FO g-FC		silt overlying gravel	fluvial-overbank sediment overlying fluvial-channel sediment	not included in unit definition	silt is generally 2 to 4 metres thick
si-FO PF	Quaternary sediment overlying Porcupine Hills Formation	silt overlying sandstone, and siltstone	fluvial-overbank sediment overlying normarine bedrock	not included in unit definition	sift is generally 2 to 4 metres thick.
I IBbti i	Balzac Drift (unit b)	pebble-loam (till) overlying sand and silt	glacial sediment overlying lacustrine traction-load sediment	smooth undulting surfaces moided by ice flow	till is less than 2 metres thick and the underlying lacustrine sediment crops out in places
Cbt-C	Crossfield Drift (unit b)	pebble-loam (till)	superglacial-mudflow sediment	glacial-collapse terrain	
Cbt-Cr	Crossfield Drift (unit b)	pebble-loam (till)	superglacial-mudflow sediment	glacier margin collapse ridge	contains isolated bodies of poorly sorted ice-contact fluvial-channel sediment
Cbt-Cuh	Crossfield Drift (unit b)	pebble-loam (till)	superglacial-mudflow sediment	undulating to hummocky glacial- collapse terrain	contains isolated bodies of poorly sorted ice-contact fluvial-channel sediment
Cbt Cd	Crossfield Drift (unit b) overlying Porcupine Hills Formation	pebble-lgam (till) overlying sandstone, siltstone, and shale	superglacial-mudflow sediment overlying nonmarine bedrock	eroded bedrock draped by glacial- collapse sediment	till is generally 4 to 6 metres thick but thickness exceeds 6 metres in places
Cbt-Cd	Crossfield Drift (unit b) overlying Porcupine Hills Formation	pebble-loam (till) overlying sandstone, and siltstone	superglacial mudflow sediment overlying nonmarine bedrock	eroded bedrock draped by glacial collapse sediment	till is generally 4 to 6 metres thick
Cbt-Ct	Crossfield Drift (unit b) overlying Porcupine Hills Formation	pebble-loam (till) overlying sandstone, and siltstone	superglacial-mudflow sediment overlying nonmarine bedrock	transverse disintegration ridges (washboard moraine)	till is generally 4 to 6 metres thick but thickness exceeds 6 metres in
Cbt-Cu	Crossfield Drift (unit b) overlying Porcupine Hills Formation	pebble-loam (till) overlying sandstone, siltstone, and shale	superglacial-mudflow sediment overlying nonmarine bedrock	undulating glacial-collapse terrain	till is generally 4 to 6 metres thick but thickness exceeds 6 metres in places
Cbt Cuh	Crossfield Drift (unit b) overlying Porcupine Hills Formation	pebble-loam [till] overlying sandstone, and siltstone	superglacial mudflow sediment overlying nonmarine bedrock	undulating to hummocky glacial- collapse terrain	till is generally 4 to 6 metres thick
[si-LO]	Crossfield Drift (unit b)	silt overlying pebble-loam (till)	lacustrine-offshore sediment overlying glacial sediment	not included in unit definition	silt is generally less than Z metres thick
Cbt					
(ssi-LT) Cht	Crossfield Drift (unit b)	sand and silt overlying pebble- loam (till)	lacustrine traction-load sediment overlying glacial sediment	not included in unit definition	lacustrine sediment is generally less than 2 metres thick.
Cbt [PF]	Crossfield Drift (unit b) overlying Porcupine Hills Formation	sand and silt overlying pebble- loam (till) overlying sandstone, and siltstone	eolian suspended-load sediment overlying glacial sediment overlying nonmarine bedrock	not included in unit definition	eolian sediment is less than 2 metres thick; bedrock commonly occurs from 4 to 6 metres beneath the surface.
Bbt-Cr	Balzac Drift (unit b)	pebble-loam (till)	superglacial-mudflow sediment	glacier margin collapse ridge	contains bodies of poorly sorted ice-contact fluvial-channel sediment
Bbt Cd [PF]	Balzac Drift (unit b) overlying Porcupine Hills Formation	pebble-loam (till) overlying sandstone, and shale	superglacial-mudflow sediment overlying nonmarine bedrock	eroded bedrock surface draped by glacial-collapse sediment	till is generally 4 to 6 metres thick
Bbt-Cg [PF]	Balzac Drift (unit b) overlying Porcupine Hills Formation	pebble-loam (till) overlying sandstone, and shale	superglacial-mudflow sediment overlying nonmarine bedrock	gently undulating glacial-collapse terrain	till is generally 4 to 6 metres thick
Bbt M	Batzac Drift (unit b) overlying Porcupine Hills Formation	pebble-loam (till) overlying sandstone, and limestone	glacial sediment overlying nonmarine bedrock	smooth undulating surfaces molded by glacial flow	till is generally 2 to 4 metres thick
PF-sn	Porcupine Hills Formation	sandstone, and mudstone	nonmarine bedrock	eroded slope	-
E SHED But	Holocene sediment overlying Balzac Drift (unit b) overlying Porcupine Hills Formation	silt overlying gravel overlying pebble-loam (till) overlying sandstone, and shale	complex of discontinuous fluvial- overbank and fluvial-channel sediment overlying glacial sediment overlying nonmarine bedrock	flat to undulating	complex sequence of discontinuous silt, gravel, and till is less than 2 metres thick
((Bbt)).T	Balzac Drift (unit b) overlying Porcupine Hills Formation	pebble-loam (till) overlying sandstone, and siltstone	glacial sediment overlying nonmarine bedrock; both deformed by glacial tectonic forces (glacial thrusting)	generally isolated knobs that are commonly elongated toward the southwest	complex mix of glacial sediment (till) displaced bedrock and gravel is expected at any given site. The till is discontinuous and generally
(Bbil) T	Balzac Drift (unit b) overlying Porcupine Hills Formation	pebble-loam (till) overlying sandstone, and siltstone	glacial sediment overlying nonmarine bedrock; both deformed by glacial tectonic forces (glacial thrusting)	generally isolated knobs that are commonly elongated toward the southwest	less than 2 metres thick.  complex mix of glacial sediment (till) displaced bedrock and gravel is expected at any given site. The till is generally more than 2 metres
(Bbi) T	Balzac Drift (unit b) overlying Porcupine Hills Formation	pebble-loam (till) overlying sandstone, and siltstone	glacial sediment overlying nonmarine bedrock; both deformed by glacial tectonic forces (glacial thrusting)	generally isolated knobs that are commonly elongated toward the southwest	thick. complex mix of glacial sediment [till] displaced bedrock and gravel is expected at any given site. Till cover is continuous and generally
18hti 	Balzac Drift (unit b) overlying Porcupine Hills Formation	pebble-loam (till) overlying sandstone, and shale	glacial sediment overlying nonmarine bedrock	not included in unit definition	less than 2 metres thick. till is generally less than 2 metres thick.



Scale 1:50 000

## Surface Materials of the Calgary Urban Area: Dalroy Sheet

NTS 82-P/4

S.R. Moran

Any revisions or additional geological information would be welcomed by the Alberta Research Council Base maps provided by the Surveys and Mapping Department of Energy, Mines and Resources, Ottawa. Cenography by Alberta Research Council, Graphic Services, R.D. Hite



Key Map

## The general legend appearing below relates to all maps in this series. All symbols and map units do not necessarily appear on each sheet.

Buried valley visible at surface Buried sand TTTT Scarp, fresh Geologic contact, definite Spring Geologic contact, inferred

T T T Scarp, buried

Minor meltwater channel Minor transverse ridges, "washboard moraine"

EXPLANATION OF MAP SYMBOL STRUCTURE The basic map symbol consists of 4 elements that describe (1) the stratigraphic unit. (2) the lithology. (3) the lithogenesis, and (4) the morphology of the unit respectively. A given map unit may be described by a symbol that consists of only one of the elements where the others are unknown on not considered significant for definition of the unit. The generalized unit symbol has the form:

As-By
where

STRATIGRAPHIC SYMBOL: used for Tertiary and Cretaceous bedrock, for Tertiary gravel, and for all till units. It has not been applied to glacial fluvial or glacial facustrine units because of difficulties in identifying stratigraphic relationships in all cases. It has not been applied to Holocene fluvial or lacustrine sediment because of difficulties in definition of the lower boundary of the Holocene and the absence of stratigraphic framework within which to treat these units. LITHOLOGIC SYMBOL: used for nearly all units throughout the map area. Exceptions include the Cretaceous and Tertiary bedrock, some alluvial fans, landsilides and other units formed by mass wasting, Holocene pond sediment, and manmade fills. In these cases morphology constituted the principal means of identification of the map units. It was felt that the characteristics of the units were generally similar regardless of lithology and as a result separation of the basis of lithology was not attempted.

LITHOGENETIC SYMBOL: used for nearly every unit with the exception of the Cretaceous and Tertiary bedrock. This element of the explanation allows communication of a maximum of descriptive characterization of the material in each map unit without requiring a great deal of verbage to be repeated on a unit

MORPHOLOGIC MODIFIER: the least systematically utilized element of the explanation. It provides data on descriptive morphology or morphogenesis. This information has been presented only where it is significant in the identification, description, and characterization of the map unit. In other cases it has been

Multiple Units In many instances, more than one material occurs in the upper 6 m of the landscape. Where a second material is thin and not considered significant, it was lumped into the dominant material and diaregarded (example a). However, where a second, third or in rare cases, a fourth material unit occurs in the upper 6 m, it has been included in the symbol for the map unit description (examples b - g). Additional units are shown by placing the four-character symbol for the second unit beneath that for the surface unit and separating them with a horizontal line.

Thin and Discontinuous Units

FI = Fluvial Ice Contact sediment

LO = Lacustrine offshore sediment

Thin and Discontinuous Units

In many places, units that are thin or discontinuous occur at the top of or within the upper 6 m (examples b, e, g). In other places, the surface unit is only slightly less than 6 m thick and therefore only a small amount of a thick, underlying unit is present in the upper 6 m (examples d, f). In order to describe these relationships, paired parentheses and brackets have been utilized to enclose the symbols. Where a unit is less than 2 m thick, or where less than 2 m of a thicker unit extends up to within 6 m of the surface, the symbol for that material is enclosed in brackets/examples b, dl. For example, the symbol. (\*\*Logical and the symbol) of the symbol of the

**EXAMPLES OF MULTIPLE UNITS**  COLOUR CONVENTION The colour of a map unit reflects the material at a depth of 2m below the surface. Where this material is overlain by another, which is less than 2m thick, a pattern indicates the composition of the veneer. silt and clay clay silt

DESCRIPTION OF STRATIGRAPHIC UNITS

DESCRIPTION OF STRATIGRAPHIC UNITS

C CROSSFIELD DRIFT
Glacial till and associated stratified drift. The till has a texture of 30-35 percent sand, 30-40 percent slit and 25-30 percent clay. Pebbles generally contain common to abundant grantic and gnesisic rocks. Two units have been differentiated in the southern part of the area on the basis of morphologic features. In a few sections compositional differences in the till support this split of the drift. Till of unit 8 contains proportionally more grantic pebbles than does unit A. Along the ancestral Bow River valley in most of the southern part of the area, the Crossfield drift overlies a 10-25 m thick unit of sit and sand, which separated it from older units. Its margin is marked by a prominent marginal disintegration ridge in the northern part of the area and parts of the south and by a meltivaster channel in the south. The Crossfield drift forms the surface unit in the eastern third of the Calgary area.

B BALZAC DRIFT B BALZAC DRIFT

B BALZAC DRIFT
Glacial till and associated stratified drift. Till of the Balzac drift is characteristically silty with a grain-size composition of 10-20 percent sand. 45-60 percent alit, and 20-40 percent clay. It is commonly stoney and contains abundant tan and yellow limestone and quartite rocks in addition to rocks similar to the underlying Spy Hill drift. Red and purple banded quartite rocks are less abundant than in the Spy Hill drift. Red and purple banded quartite rocks are less abundant than in the Spy Hill drift. Grantic and gneissic rocks are present but are rare. Lithologically the Balzac drift is very similar to the underlying Lochend drift. The two drifts included within the Balzac drift have not been differentiated on a lithologic basis. The separation of the area underlain by silty drift into three units, the Lochend drift and the A and B units of the Balzac drift, is based almost entiriely on the existence of two morphologically defined ice-marginal positions that have been traced across the entire area. In the north, these margins are marked primarily by marginal ridges, across which the morphological character of the landscape changes. In the south, however, marginal melevater channels border much of the length of the margins. The two units of the Balzac drift occupy most of the north-central part of the study area and extend as a narrow belt southward through the center of the area.

L LOCHEND DRIFT
Glacial till and associated stratified drift. Till of the Lochend drift is characteristically silty, with a grain-size composition of 10-20 percent sand, 45-60 percent silt and 20-40 percent clay. It is commonly stoney and contains abundant fragments of Tertiary and Cretaceous sandstones and siltstone. The public fraction contains abundant tan and yellow limestone and quartrite rocks in addition to rocks similar to the underlying Spy Hill drift. Grantic and gneissic rocks are present but rare. The Lochend drift is recognized in a narrow zone along the top and eastern flank of the Big Hill updand. To the south it is even narrower, and in places, is overlapped by the younger Balzac drift. The western margin of the Lochend drift is marked by a simple sharp disintegration ridge along most of the Big Hill updand and by marginal meltwater channels in the south.

S spY HILL DRIFT

The Spy Hill drift is the oldest of the surface stratigraphic units in the Calgary area, In the western part of the area, it consists of till and associated stratified drift that was deposited from a glacier that flowed into the Calgary area from the west via the valley of the Blow River. The till is generally heavy textured with a grain size composition of 15-20 percent sand, 40-45 percent silt and 40-45 percent clay, Pebbles are abundant along the Blow River valley, Further to the south the pebble content decreases. The pebble fraction is characterized by dark grey to black limestone and purple and pink banded quartrise. Grantize and greiscir orck types are absent. Till of the Spy Hill drift is recognized beneath lake sediment throughout the Calgary area. It occurs along the buried ancestral Blow Valley as far east as DeWinton beneath younger drifts.

In the eastern part of the area west of the mapped limit of the Lockend drift, the

Spy Hill includes a younger unit of till and associated stratified drift that was This is the chronostratigraphic designation for all the sub till upland gravel in the

rins as the chronostratigraphic designation for all the sub-dill upland gravel in the Calgiary area. Well sorted, rounded gravel containing abundant carbonate rock and quartitis clasts and no granitic or gneissic rocks. In many places it crops out and is cemented with secondary carbonate. Tertiary gravel caps the Big Hill and Broadcast Hill uplands. PF PORCUPINE HILLS FORMATION Series of crossbedded sandstone and calcareous bentonitic shale. The maximum preserved thickness of the formation is probably in the order of 3,000 feet. In the type area, the Porcupine Hills contain abundant freshwater molluscan remains of

KF CRETACEOUS FORMATIONS Brazeau Formation: sandstone, mudstone, siltstone and conglomerate

DESCRIPTION OF LITHOLOGIC SYMBOLS SYMBOL DESCRIPTION c clay: Sediment containing more than 40% meterial finer than 0.004 mm and less than 45% material coarser than 0.002 mm sand) and less than 40% of material coarser than 0.004 mm but finer than 0.0025 mm (silt). Also includes units of interbedded clay and silt las defined above and below) in which the proportions of beds of clay meet the

si silt: Sediment containing less than 50% material coarser than 0.0625 mm (sand) and less than 25%, material finer than 0.004 mm (clay). Also includes units of interbedded silt (as defined above) and clay (as defined above) or sand (as defined below) in which the proportions of beds of silt meet these same criteria. s sand: Sediment containing less than 15% material finer than 0.004 mm (clay) and less than 30% material coarser than 0.004 mm but finer than 0.082 mm (sitt), Also includes units of interbedded sand and sit lad defined above in which the proportions of beds of sand meet these same

sic silt and clay. A mixture of silt and clay, as defined above, in which clay content is greater than 30% but less than 50%. In some places it consists of interbedded silt and clay beds in the above proportions; in other places it consists of an intimate mixture of silt-size and clay-size sediment in the above proportions. soi sand and sift: A mixture of sand and sift, as defined above, in which sand content is greater than 50% but less than 75%. In some places it consists of interbedded sand and sift in the above proportions; in other places it consists of an intimate mixture of sand-size and sift-size sediment in the above proportions.

sg sand and gravel: A mixture of sand, as defined above, and gravel, in which the gravel content is less than 30%. In some places it consists of interbedded sand and gravel; in other places it consists of an intimate mixture of sand and gravel-size material. g gravel: Sediment containing more than 30% of material greater than 3,0 mm in diameter and less than 50% silt or clay as defined above.

t till or pebble loam: A poorly-sorted, intimate mixture of sand, silt- and clay-size sebble loam: A poorty-sorted, intimate mixture of saind, sit- and ciay-size material that contains minor pebbles, cobbles and boulders. The sediment is generally unbedded although partings and poorty developed laminations do occur. In many places, contrains inclusions of gravel, sand, sit, or clay that are commonly contorted. In the Calgary area, sand content generally ranges from 15% to 35%, sit content from 25% to 55%, and clay content from 20% to 45% of the matrix.

DESCRIPTION OF MORPHOLOGIC SYMBOLS d - draped: surface material is thin enough that the underlying topography is observable. gently undulating: 1° to 2° maximum slope angle. undulating: 2° to 4° maximum slope angle. hummocky: more than 4" slope angle.

lag: concentration of pebbles, cobbles and boulders left by water erosion of underlying material. marginal disintegration ridge: ridge formed at the margin of a glacier; generally 1 to 3 metres high commonly composed of till and poorly sorted sand and gravel.

se - slope eroded: slope eroded by a combination of slopewash and mass wasting.

## DESCRIPTION OF LITHOGENETIC SYMBOLS

ANTHROPOGENIC SEDIMENT

ANTHROPOGENIC SEDIMENT

A highly diverse unit that can have any composition from clay to boulders. Generally poorly sorted loamy material consisting of silt, sand and clay. Recompacted pebble loam is a common material, which makes identification difficult in some cases. Commonly contains refuse such as fragments of concrete pavement and drainage tiles. In many places, other refuse such as car bodies and household or industrial waste is incorporated. Ranges from structureless to bedded. Ranges from loses to dense where it has been compacted. The gently inclined planar layering in some compacted fill can be very difficult to differentiate from natural sedimentary bedding even on close examination although it is generally more evidently composed of granules of material that have been pressed together. Brown to grey colour.

Manmade pond sediment

APP Manmade pond sediment
Sediment in pond may be absent if sediment influx is prevented. Sediment is a
poorly sorted mixture of sand, silt and clay if natural sedimentation is allowed
after pond excavation. Sediment may be diverse if man has been adding sedimen
to pond; may include sand, silt, clay, stones and household and industrial waste

HILLSLOPE SEDIMENT Includes a wide range of sediment types from clay to boulders. Composition of material at any site is directly related to the material upslope. Abrupt compositional variation is common. Colour generally grey to brown, locally rusty red. Tough when dry; soft when wet.

red. Tough when dry; so't when wet.

HC Hillstope colluvier

Sediment is mainly completely eroded and reconstituted material moved to deposition site by creep, or channel or sheet wash. In places clasts of recognizable upslope sediment are present.

HL Hillstope landstilde sediment includes a wide range of sediment type from clay to boulders. Composition of material at any site is directly related to composition of material upslope. Sediment of this unit varies from blocks of the original material that have slid or fallen to reconstituted sediment that bears no evidence of original form. Abrupt compositional variation is common. EOLIAN SEDIMENT

Collain sees-loss setuments
Medium to very fine grained sand; very well sorted, loose, unbedded to obscurely
bedded in places. Organic matter may form discrete layers usually with a diffuse
lower boundary. Light grey to light brown, locally reddish brown. Commonly in
dunes and blowouts. ES Eolian suspended-load sediment Silt and very fine sand: very well sorted, loose, unbedded to very obscurely bedded in some places. Organic matter is disseminated throughout the unit or appears as discrete layers, generally with a diffuse lower boundary. Light grey to light brown. locally reddish brown. Wind blown dust, loses.

POND SEDIMENT PS Pond Sodiment
Poorly sorted mixture of silt, clay and sand. Loamy and silty material most common. Commonly contains considerable disseminated organic matter. Bedding generally obscure. Colour black to grey, in places, rusty brown. Externely hard when dry, tough to soft when wet. Fossils commonly include mollusks, especially gastropods. Islough sediment).

FLUVIAL SEDIMENT

FLUVIAL SEDIMENT

AF Fluvial fan sediment
Bedded silt, sand and gravel with minor clay, Generally loamy mixtures. Bedding
distinct to obscure, bedding commonly cut by overlying beds in cut and fill
relationship. Organic matter accumulations occur in discrete bands within the unit.
Bedding dips uniformly away from fan source. Gray to brown, locally reddish
brown. In most fans, channel and overbank facies have not been distinguished.
However, along the northern edge of the Broadcast Hill upland several large fans
are sufficiently well developed that the channel facies could be separated out.
Numerous small gravel pits are developed in this facies.

FC Fluvial channel sediment very obscure, but includes plane bedding, very large scale dunes, or single slipface cross bedding. Poorly sorted to moderately well sorted but with little silt or clay in most places. Grey to brown,

Fluvial ice contact sediment Gravel, sandy gravel, gravelly sand and sand. Generally very poorly sorted with large variation in grain size both within individual beds and between adjacent beds. Bedding is distinct to obscure with planer bedding, large-and-small scale trough cross bedding. Generally contains inclusions of unsorted material. Bedding commonly contorted by folds and faults. Grey to light brown.

FO Fluvial overbank sediment
Poorly sorted slift, sand and clay. Generally a loamy mixture. Contains pebbles in
thin lenses near streams. Bedding present but obscure in many places. Organic
matter present generally in discrete layers although disseminated throughout unit
in places. Plant roots and branches are common inclusion. Grey to light grey. Hard
to moderately hard when dry; moderately hard to soft when wet. LACUSTRINE SEDIMENT

LO Lacustrine offshore sediment Silt, clayer silt, silty clay, or clay. Thinly bedded with plane bedding in fine-grained beds; ripple bedding in places in coarse silt beds. Generally soft when wet and more dense when dry. Generally grey.

Lacustrine traction-load sediment
Very fine sand, silt and minor clay. Moderately well sorted within individual beds
but adjacent beds vary from clay to fine sand in some places. Small scale troughshaped cross bedding and ripple bedding dominate in the sand and coarse silt
beds. Generally light grey in the subsurface but oxidizes readily to yellow or light
brown upon exposure. Soft where saturated.

-WW Wave-washed sediment
 Thin sandy gravel lag formed by wave erosion of underlying glacial sediment.

Mainly till; a mixture of sand, silt, clay and a few pebbles, cobbles and boulders; in places may include discontinuous layers of stratified sediment - usually sand or gravel. Bedding is generally absent in the till although obscure foliation is locally present and the upper contact of this sediment may be gradational with alternating layers of till and of the overlying sediment. Sediment generally overconsolidated and dense to very dense. Brown near surface, grey in the subsurface. •C Glacial collapse sediment Till deposited by meltout of superglacial or englacial sediment generally followed by some mass westring in superglacial position. Sediment is mainly till but locally includes gravel, sand, silt or clay of glaciofluvial or glaciolacustrine origin. Characterized by fregular, undulating to hummocky topography with linear disintegration features.

M Glacial moulded sediment Thin glacial sediment draped over pre-existing material that has been subglacially moulded into streamlined longitudinal ridges and grooves. T Glacial thrust sediment Masses of originally subglacial sediment incorporated, transported and deposited by the glacier more or less intact. Deposits may include syngenetic till and masses of pre-existing till, stratified sediment and/or bedrock.